

Service Manual

ViewSonic E70-3
Model No. VCDTS21569-3

17" Digital Controlled Color Monitor
E² Series



(Rev. 1 – March 2000)

ViewSonic® 381 Brea Canyon Road, Walnut, California 91789 USA - (800) 888-8583

Copyright

Copyright © 1998 by ViewSonic Corporation. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of ViewSonic Corporation.

Disclaimer

ViewSonic makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranty of merchantability or fitness for any particular purpose. Further, ViewSonic reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation of ViewSonic to notify any person of such revision or changes.

Trademarks

ViewSonic is a registered trademark of ViewSonic Corporation.
All other trademarks used within this document are the property of their respective owners.

Revision History

Revision	Date	Description Of Changes	Approval
1.0	3/10/00	Initial Issue	T. Sears

Copyright

Copyright © 1998 by ViewSonic Corporation. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of ViewSonic Corporation.

Disclaimer

ViewSonic makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranty of merchantability or fitness for any particular purpose. Further, ViewSonic reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation of ViewSonic to notify any person of such revision or changes.

Trademarks

ViewSonic is a registered trademark of ViewSonic Corporation.
All other trademarks used within this document are the property of their respective owners.

Revision History

Revision	Date	Description Of Changes	Approval
1.0	3/10/00	Initial Issue	T. Sears

TABLE OF CONTENTS

1. PRECAUTIONS AND SAFETY NOTICES	1-2
2. SERVICE TOOLS & EQUIPMENT REQUIRED.....	3
3. SPECIFICATIONS	3-5
4. EXPLODED VIEW & PARTS LIST	6-7
5. BLOCK DIAGRAM.....	8-9
6. SCHEMATIC DIAGRAM	10
7. WIRING DIAGRAM	11
8. PCB LAYOUTS	12-13
9. TROUBLESHOOTING FLOW CHART.....	14-22
10. ADJUSTMENTS.....	23-24
11. ELECTRICAL PARTS LIST	25-36

E70-3 Service Manual

1. PRECAUTION AND NOTICES

1.1. SAFETY PRECAUTIONS

1. Observe all caution and safety related notes located inside the display cabinet.
2. Operation of the display with the cover removed, may cause a serious, shock hazard from the display power supply. Work on the display should not be attempted by anyone who is not thoroughly familiar with the necessary precautions when working on high voltage equipment.
3. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. people who are not so equipped should be kept away while handling picture tube. Keep picture tube away from the body while handling.
4. The picture tube is constructed to limit X-RAY radiation to 0.5 mR/HR. For continued protection, use the designated replacement tube only, and adjust the voltages so that the designated maximum rating at the anode will not be exceeded.
5. Before returning a serviced display to the customer, a thorough safety test must be performed to verify that the display is safe to operate without danger or shock. Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as screw heads. Test method for current leakage is described as follow.
 - (a) Plug the AC line cord directly into rated AC outlet (do not use a line isolation transformer during this check).
 - (b) Use an AC voltmeter having 5000 ohms per volt or with more sensitivity in the following manner: Connect a 1500 ohms 10 Watt resistor, paralleled by a 0.15mfd, AC type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts simultaneously. Measure the AC voltage across the combination of 1500 ohms resistor and 0.15mfd capacitor.
 - (c) Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part.
 - (d) Voltage measured must not exceed 2.8 volts RMS. This corresponds to 2 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

1.2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-RAY radiation or other hazards.

E70-3 Service Manual

1.3. SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor (more than 1W of metal oxide film resistor) in circuit board, keep the resistor about 5mm away from circuit board.
3. Keep wires away from high voltage, high temperature components and sharp edges.
4. Keep wires in their original position so as to reduce interference.
5. Usage of this product please refer to also user's manual.

1.4. HIGH VOLTAGE WARNING

Operation of monitor outside of cabinet or with back removed may cause a serious shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnection ground lead connections between chassis and picture tube dag when operating chassis.

Certain HV failures can increase X-ray radiation. Monitor should not be operated with HV levels exceeding the specified rating for the chassis type.

The maximum operating HV specified for the chassis used in this monitor is

25.5KV $\pm$ 1KV

with a line voltage of 120/240V AC. Higher voltage may also increase possibility of failure in HV Supply.

It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the monitor that could cause a rise in high voltage or operating supply voltages. No changes should be made to the original design of the monitor. Components shown in the shaded areas on the schematic should be replaced with exact factory replacement parts. The use of unauthorized substitute parts may create a shock, fire or other hazard.

To determine the presence of high voltage, use an accurate, high impedance, HV meter connected between second anode lead and CRT dag grounding device.

When servicing the High Voltage System, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord disconnected from AC power outlet).

The picture tube used in this monitor employs integral implosion protection. Replace with tube of the same type number for continued safety. Do not lift picture tube by the neck. Handle the picture tube only after discharging the high voltage completely.

E70-3 Service Manual

2. SERVICE TOOL & EQUIPMENT REQUIRED

1. MULTIMETER
2. OSCILLOSCOPE
3. SCREW DRIVER
4. IRON
5. ABSORBER
6. SOLDER

3. SPECIFICATIONS

3.1. PRODUCT SPECIFICATIONS

CRT:	Size:	17 Inch Diagonal Flat Square Type
	Viewable Size:	15.6 Inch (Diagonal)
	Dot Pitch:	0.27/0.25 (Optional)
	Deflection:	90° Degree
DISPLAY:	Size:	300mm x 225mm
	Diagonal Size:	398mm
	Color:	Unlimited Colors
	Resolution:	Up to 1280 x 1024
	Pixel Rate:	110MHz
INPUT SIGNAL:	Video Signal:	RGB Analogue 0.7Vpp 75 Ohms
	Sync. Signal:	H/V. Separated, TTL. Level Positive or Negative.
	Scanning Freq.:	30 KHz to 70 KHz for Horizontal
		50 Hz to 120 Hz for Vertical
POWER SOURCE:	Power Supply:	AC 100-240V, 60Hz/50Hz.
	Power Consumption:	100W Max.

POWER MANAGEMENT

The Power Management states are controlled by the presence and/or absence of horizontal and vertical sync signals according to the following:

STATE	H. Sync	V. Sync	Power (normal)	LED
ON	ON	ON	100WATTS	GREEN
STANDBY	OFF	ON	15WATTS	ORANGE
SUSPEND	ON	OFF	15WATTS	ORANGE
OFF	OFF	OFF	3WATTS	ORANGE

E70-3 Service Manual

3.2. FACTORY PRESET MODE TIMING CHART

MODE NO	1	2	3	4	5	UNIT
	VESA	VGA	VESA	VESA	VESA	
Resolution	1024x768	640x400	640x480	640x480	800x600	
Pixel	78.750	25.175	31.500	36.000	49.500	MHz
H. Sync Polarity	+	-	-	-	+	
V. Sync. Polarity	+	+	-	-	+	
Horizontal Frequency	60.023	31.469	37.500	43.269	46.875	KHz
Horizontal Period	16.660	31.778	26.667	23.111	21.333	usec
Horizontal Sync Width	1.219	3.813	2.032	1.556	1.616	usec
Horizontal Back Porch	2.235	1.907	3.810	2.222	3.232	usec
Horizontal Active Video	13.003	25.422	20.317	17.778	16.162	usec
Horizontal Front Porch	0.203	0.636	0.508	1.556	0.323	usec
Vertical Frequency	75.029	70.087	75.000	85.008	75.000	Hz
Vertical Period	13.328	14.268	13.333	11.764	13.333	msec
Vertical Sync Width	0.050	0.064	0.080	0.069	0.064	msec
Vertical Back Porch	0.466	1.112	0.427	0.578	0.448	msec
Vertical Active Video	12.795	12.711	12.800	11.093	12.800	msec
Vertical Front Porch	0.017	0.381	0.027	0.023	0.021	msec
Interlaced	NO	NO	NO	NO	NO	

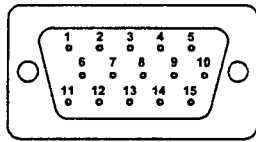
MODE NO	6	7	8	9	10	UNIT
	VESA	VESA	VESA	VESA	MAC	
Resolution	800x600	1024x768	1024x768	1280x1024	640x480	
Pixel	56.250	65.000	94.500	108.0	30.240	MHz
H. Sync Polarity	+	-	+	+	-	
V. Sync. Polarity	+	-	+	+	-	
Horizontal Frequency	53.674	48.363	68.677	63.981	35.00	KHz
Horizontal Period	18.631	20.677	14.561	15.630	28.571	usec
Horizontal Sync Width	1.138	2.092	1.016	1.037	2.116	usec
Horizontal Back Porch	2.702	2.462	2.201	2.296	3.174	usec
Horizontal Active Video	14.222	15.754	10.836	11.852	21.164	usec
Horizontal Front Porch	0.569	0.369	0.508	0.444	2.116	usec
Vertical Frequency	85.061	60.004	84.996	60.020	66.667	Hz
Vertical Period	11.756	16.666	11.765	16.661	14.999	msec
Vertical Sync Width	0.056	0.124	0.044	0.047	0.085	msec
Vertical Back Porch	0.503	0.599	0.524	0.594	1.114	msec
Vertical Active Video	11.179	15.880	11.183	16.005	13.714	msec
Vertical Front Porch	0.019	0.062	0.015	0.016	0.085	msec
Interlaced	NO	NO	NO	NO	NO	

E70-3 Service Manual

MODE NO	11	12				UNIT
	MAC	MAC				
Resolution	832x624	1024x768				
Pixel	57.283	80.000				MHz
H. Sync Polarity	—	—				
V. Sync. Polarity	—	—				
Horizontal Frequency	49.725	60.241				KHz
Horizontal Period	20.111	16.6				usec
Horizontal Sync Width	1.117	1.2				usec
Horizontal Back Porch	3.910	2.2				usec
Horizontal Active Video	14.525	12.8				usec
Horizontal Front Porch	0.559	0.4				usec
Vertical Frequency	74.534	74.927				Hz
Vertical Period	13.414	13.346				msec
Vertical Sync Width	0.060	0.05				msec
Vertical Back Porch	0.784	0.498				msec
Vertical Active Video	12.549	12.749				msec
Vertical Front Porch	0.02	0.05				msec
Interlaced	NO	NO				

3.3. D-SUB CONNECTOR

D-SUB 15 PIN CONNECTOR



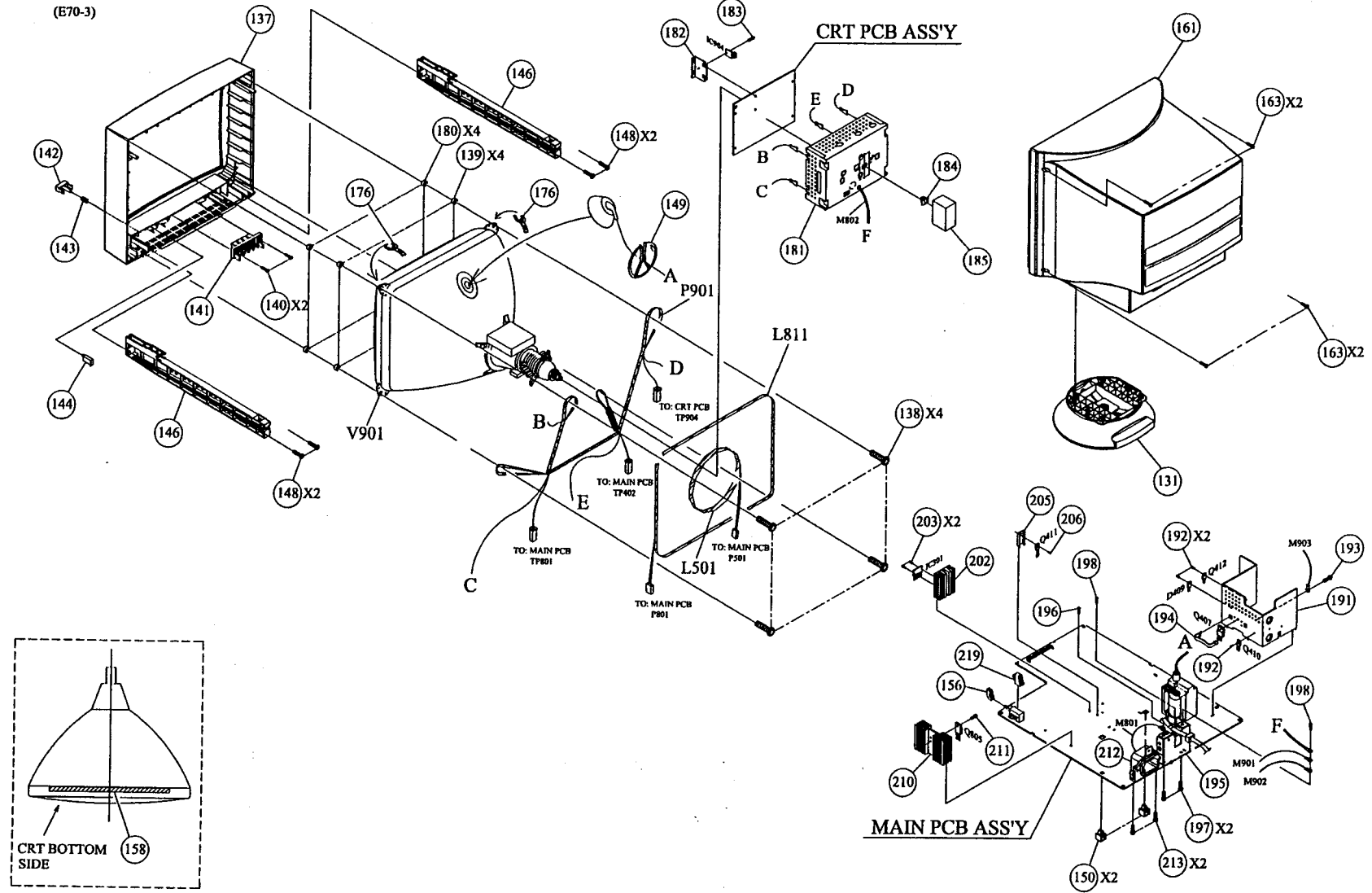
1.R	6.GND	11.GND
2.G	7.GND	12.SDA
3.B	8.GND	13.H.SYNC
4.GND	9. NC	14.V.SYNC
5.NC	10.GND	15.SCL

SIGNAL LEVEL

CONNECTOR	SIGNAL	DESCRIPTION
R	RED	0.7vp-p
G	GREEN	0.7vp-p(VIDEO)
B	BLUE	0.7vp-p
H	H/SYNC	TTL positive or negative
V	V/SYNC	TTL positive or negative
SDA	DDC1/2B	TTL negative
SCL	DDC1/2B	TTL negative

4.1. EXPLODED VIEW

(E70-3)



1/17/2000

E70-3 Service Manual

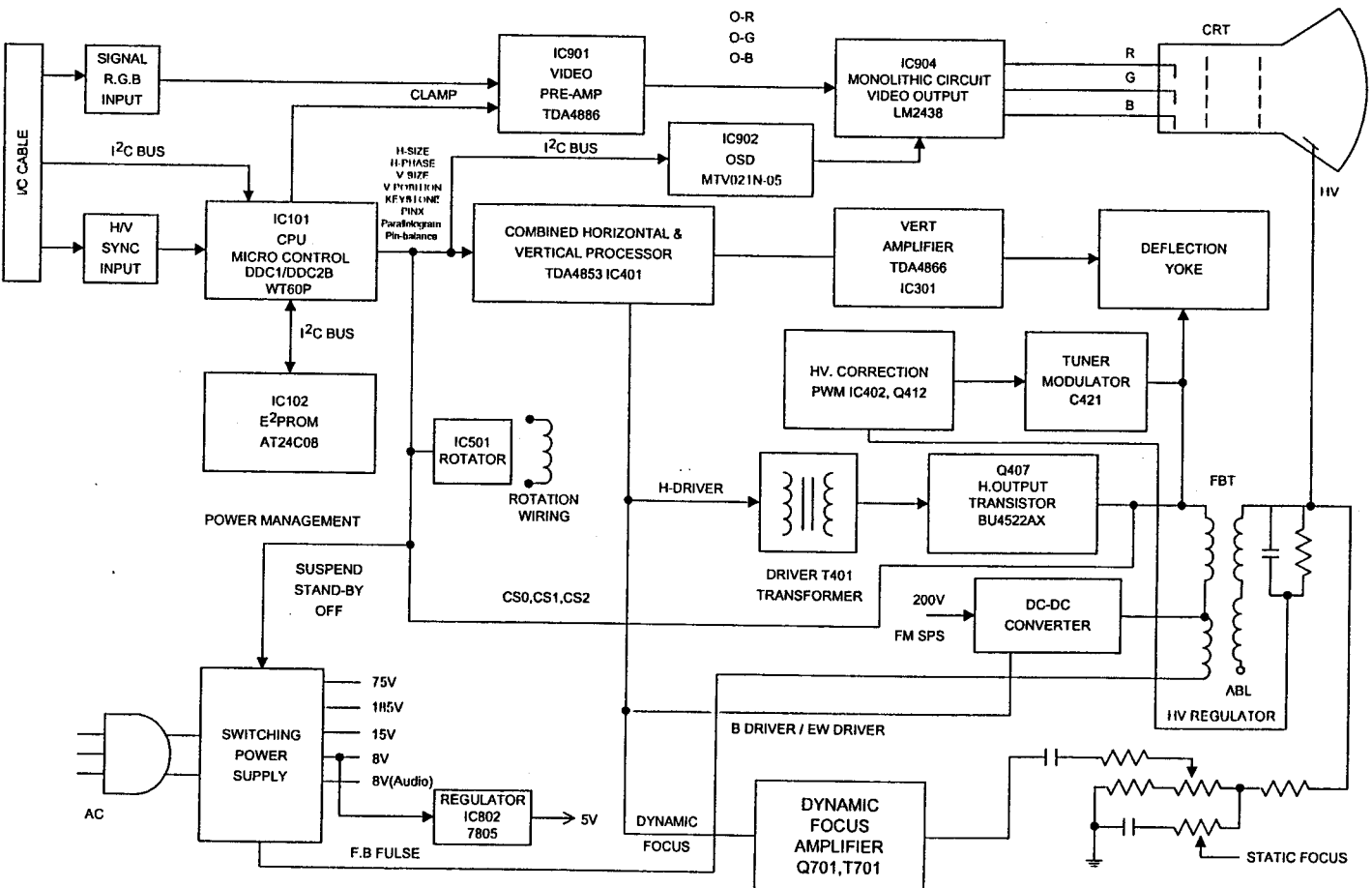
4.2. EXPLODED VIEW PARTS LIST

Ref. No.	Source	Part No.	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
131		2603200070	STAND ASSY	JD177S3 HIPS94HB V.S.C COLOR	1	(USA)
131		2603200071	STAND ASSY	JD177S3 V.S.C COLOR	1	(ASA)/(B)/(SEA)/(E)
137		2024256602	PANEL	JD177S V.S E70 ABS94V0 GY7521	1	
138		2080205400	SCREW,SPE T+	JD157N 5X30L WASHER D=18	4	
139		2061450300	BUSHING	φ 20X φ 6.0X φ 3.0t	4	
140		2080000500	SCREW,SPE	IC SCREW M3X12	2	
141		2044255002	FUNCTION KEY	JD177S ABS94V0 GY7521	1	
142		2046254502	PUSH BUTTON	JD177S ABS94V0 GY7521	1	
143		2105150200	SPRING	φ 0.5	1	
144		2053256200	INDICATOR	JD177S POWER LED P3 PMMA 94HB	1	
146		2074156801	HOLDER	JD177S (PCB) ABS94V0 G7258	2	
148		2084740102	SCREW,BND T+	M4X10(BND T+)	4	
149		2074153400	HOLDER	NYLON 66(UL)	1	
150		2074157300	HOLDER	JD177S SPACER HOLDER NYLON	2	
156		2074156501	HOLDER	JD177S (POWER) ABS94V0 G7258	1	
158		2063450600	ADHESI SHEET	200X15mm t=1.0 PVC 94V0	1	
161		2022254602	CABI BACK	JD177S ABS94V0 GY7521	1	
163		2084740202	SCREW,BND T+	M4X20(BND T+)	4	
176		2074191600	HOLDER	12865 <101> PP HB	2	
180		2090105043	WASHER,METAL	20X5.5D 0.5T	4	
181		2071650700	SHIELD PLATE	SPTE T=0.3	1	
182		2072255000	HEAT SINK	JD199A A1100P t=2mm	1	
183		2084730102	SCREW,BND T+	M3X10(BND T+)	1	
184		2074152600	HOLDER	PC 94V0	1	
185		2061250300	SPONGE	JD145K 50X80X35t Pu FOAM94HF-1	1	
191		2072252002	HEAT SINK	A1100P+SPTE	1	
192		2084730102	SCREW,BND T+	M3X10(BND T+)	3	
193		2080000200	SCREW,SPE	JD156H 2082640102+2092440200	1	
194		2105250100	SPRING PLATE	SUS301 0.35t	1	
195		2071952200	METAL FITTG	JD177G SECC 1mm	1	
196		2080000200	SCREW,SPE	JD156H 2082640102+2092440200	1	
197		2087230102	SCREW,B SPW+	3X10(T+) SWRM-3 ZMC2-C	2	
198		2080000200	SCREW,SPE	JD156H 2082640102+2092440200	2	
202		2072251300	HEAT SINK	A60635-TS	1	
203		2084730102	SCREW,BND T+	M3X10(BND T+)	2	
205		2072253901	HEAT SINK	JD177P2 53900/UPDATE/C-NICKEL	1	
206		2084730102	SCREW,BND T+	M3X10(BND T+)	1	
210		2072214600	HEAT SINK	JD176B ALUMINUM	1	
211		2084730102	SCREW,BND T+	M3X10(BND T+)	1	
212		2071952900	METAL FITTG	JD199A SECC t=1.0mm	1	
213		2084730102	SCREW,BND T+	M3X10(BND T+)	2	
219		2074150900	HOLDER	NYLON 66	1	

E70-3 Service Manual

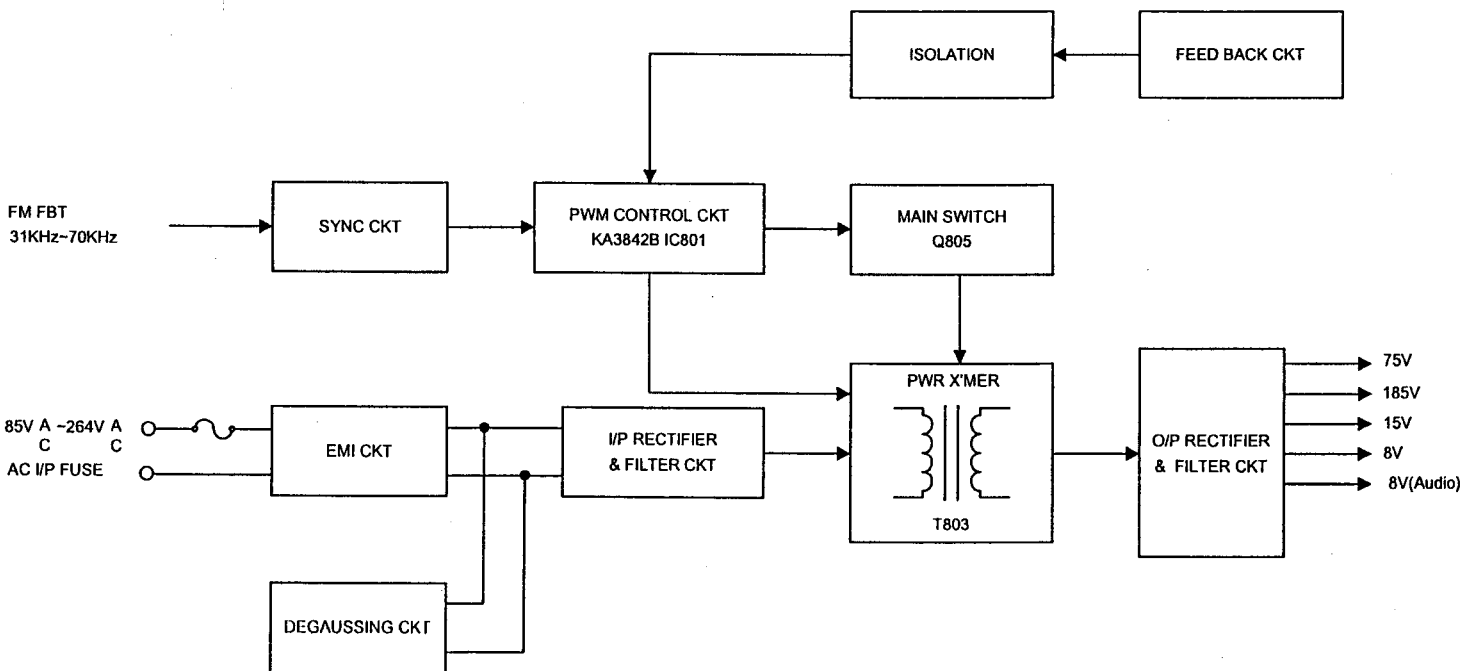
5. BLOCK DIAGRAM

5.1. (VIDEO,VERT&HORT)

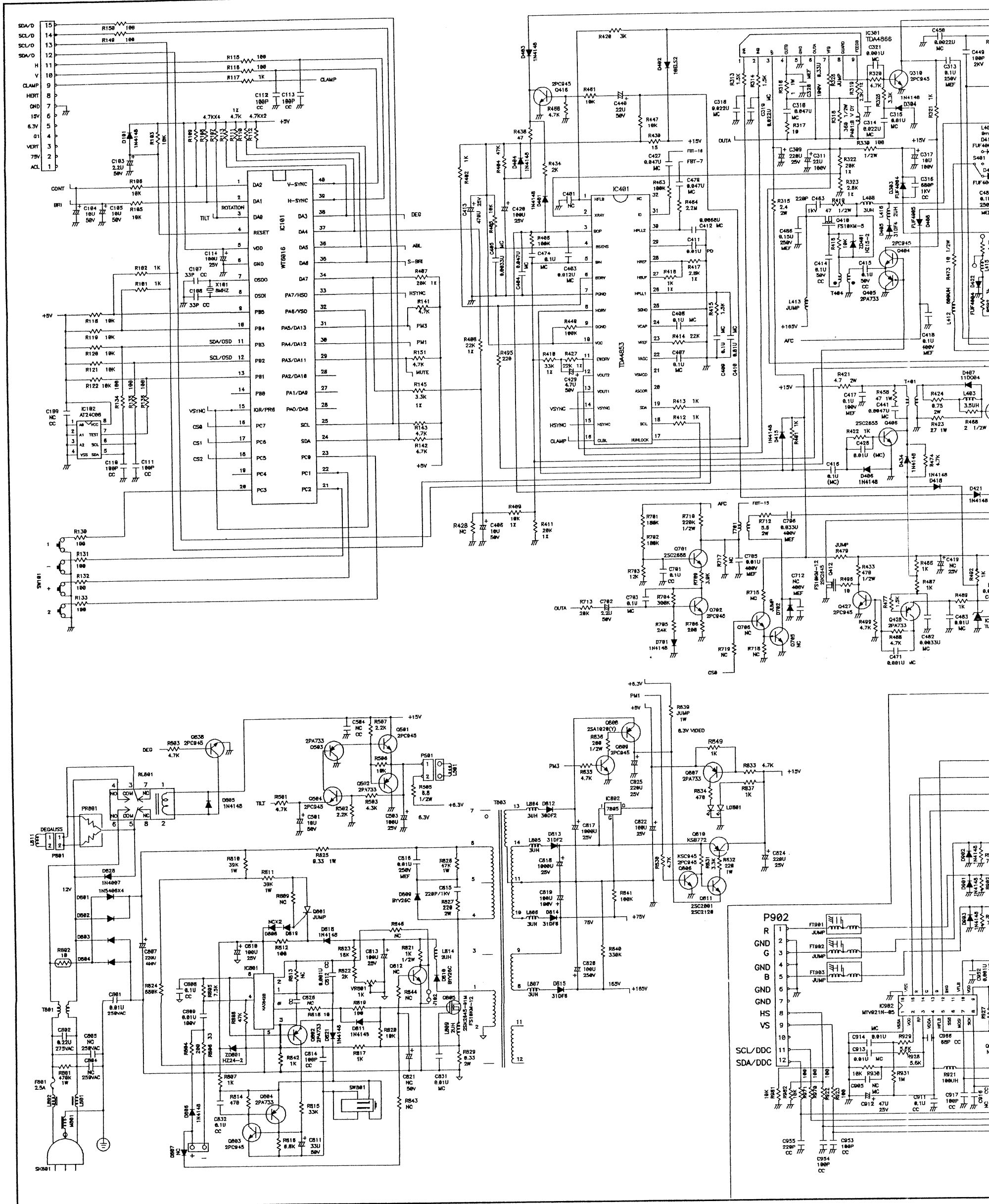


E70-3 Service Manual

5.2. SPS

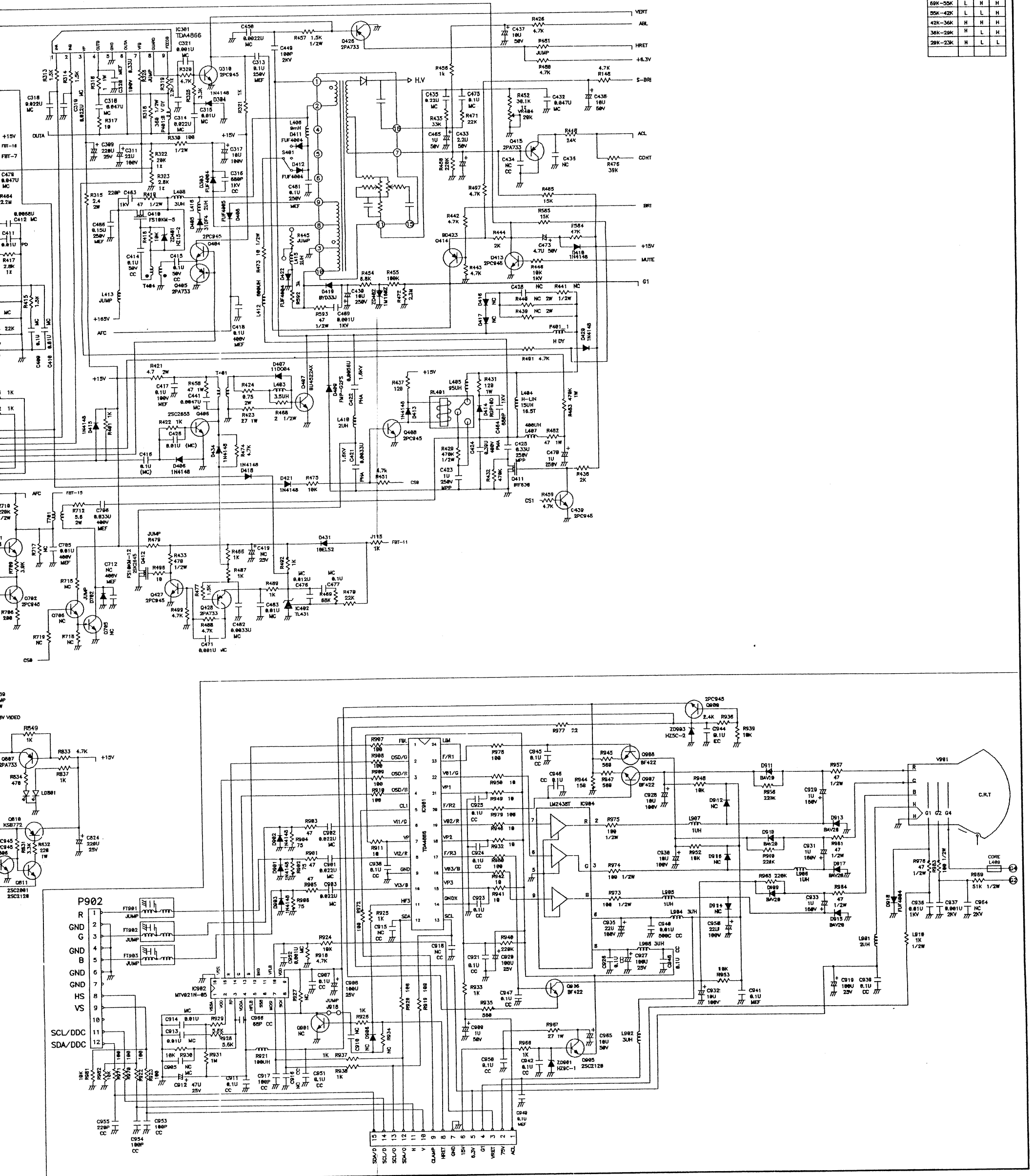


6. SCHEMATIC DIAGRAM



Confidential - Do Not Copy

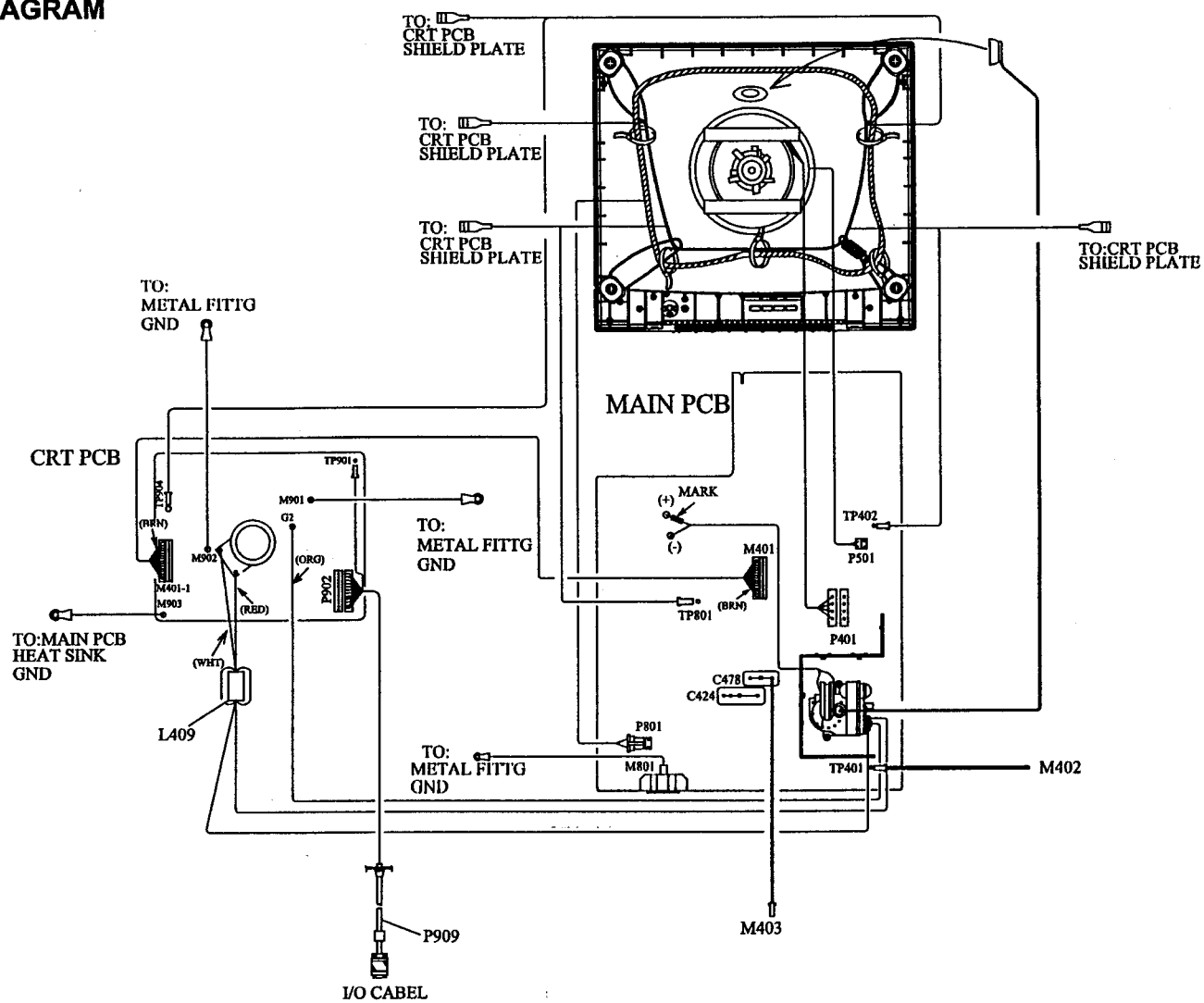
	CS0	CS1	CS2
60K-55K	L	H	H
50K-42K	L	L	H
42K-36K	H	H	H
36K-29K	H	L	H
29K-23K	H	L	L



Confidential - Do Not Copy

7. WIRING DIAGRAM

(E70-3)



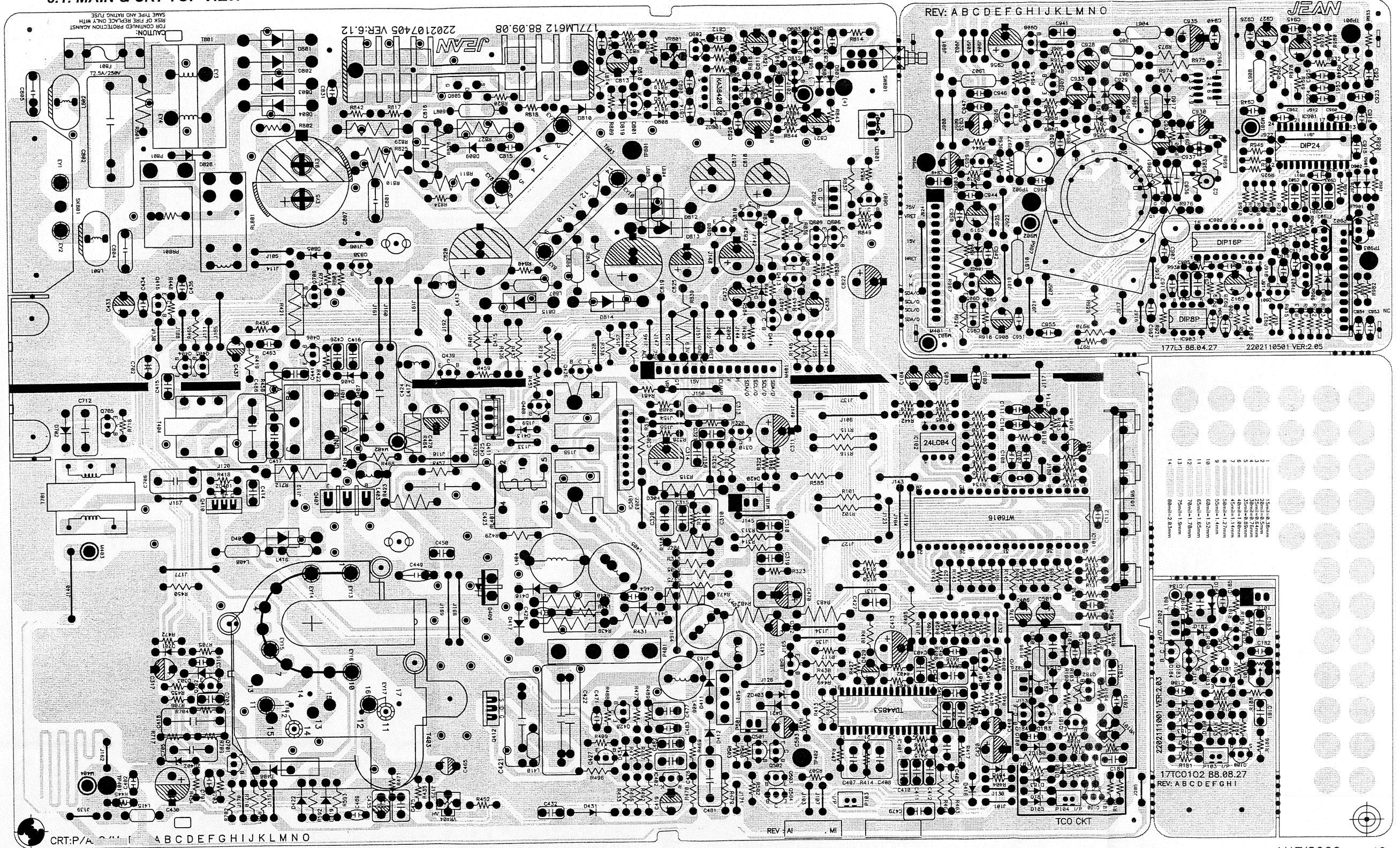
-11-

1/17/2008

Confidential - Do Not Copy

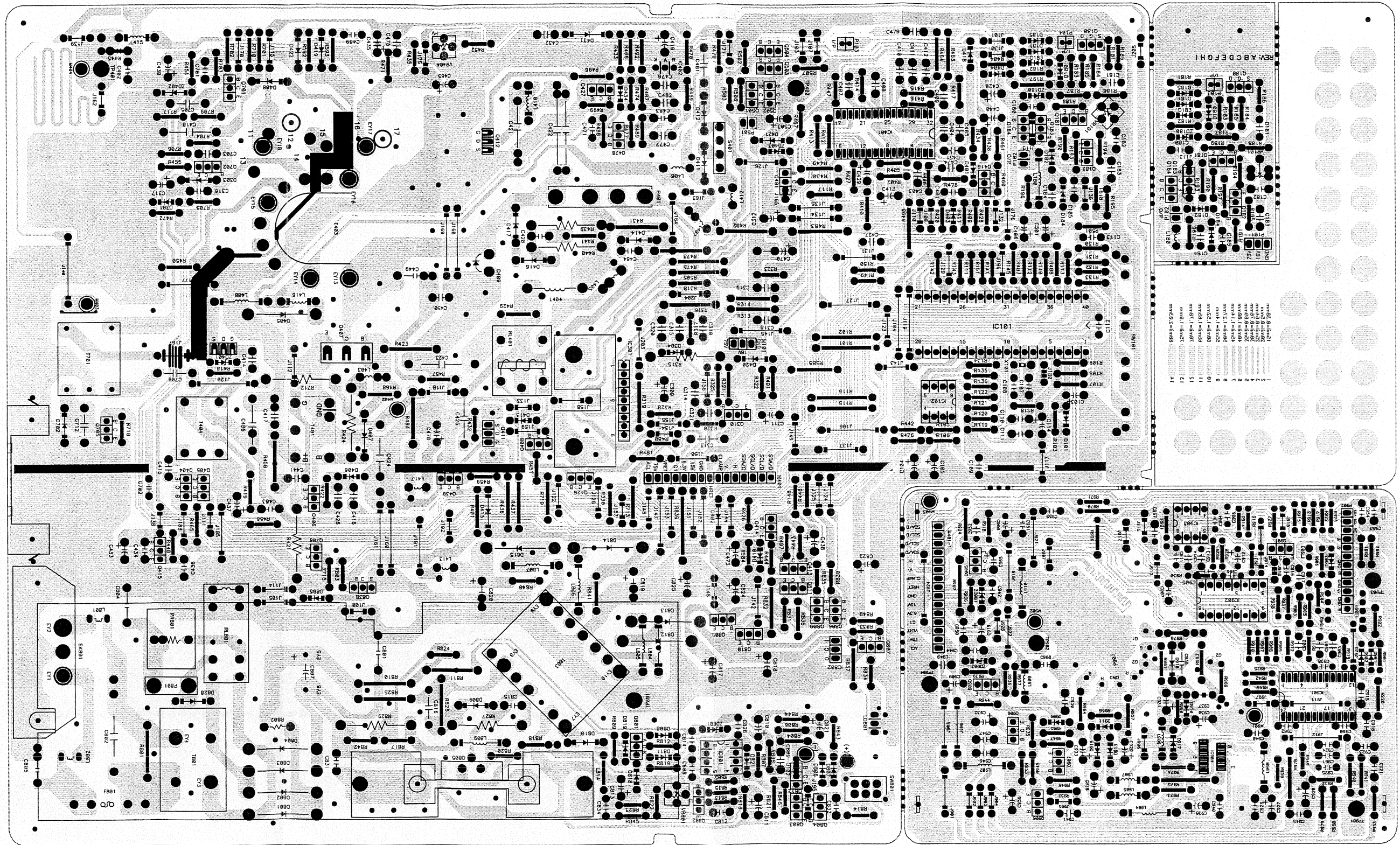
8. PCB LAYOUT

8.1. MAIN & CRT TOP VIEW



Confidential - Do Not Copy

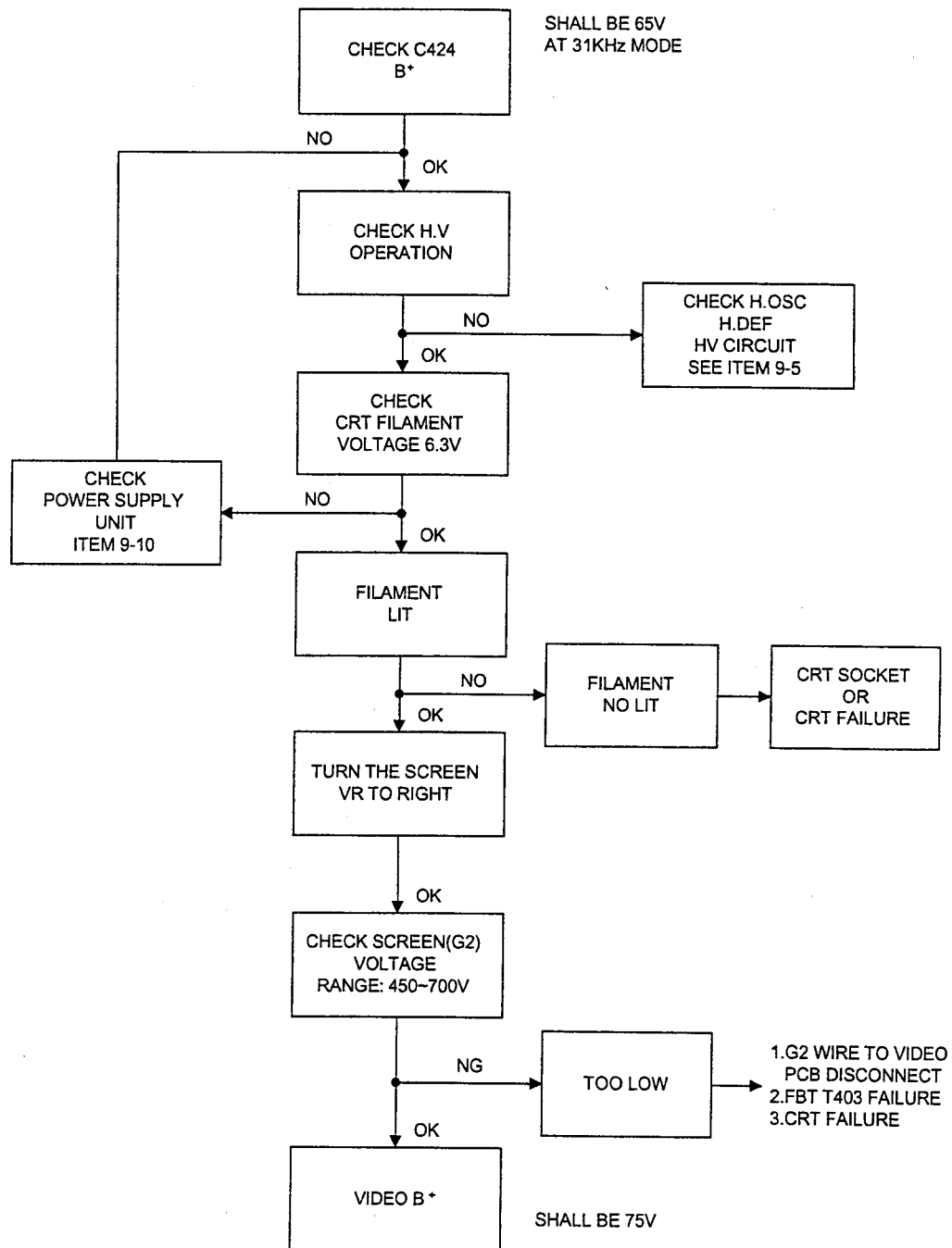
8.2. MAIN & CRT PCB BOTTOM VIEW



E70-3 Service Manual

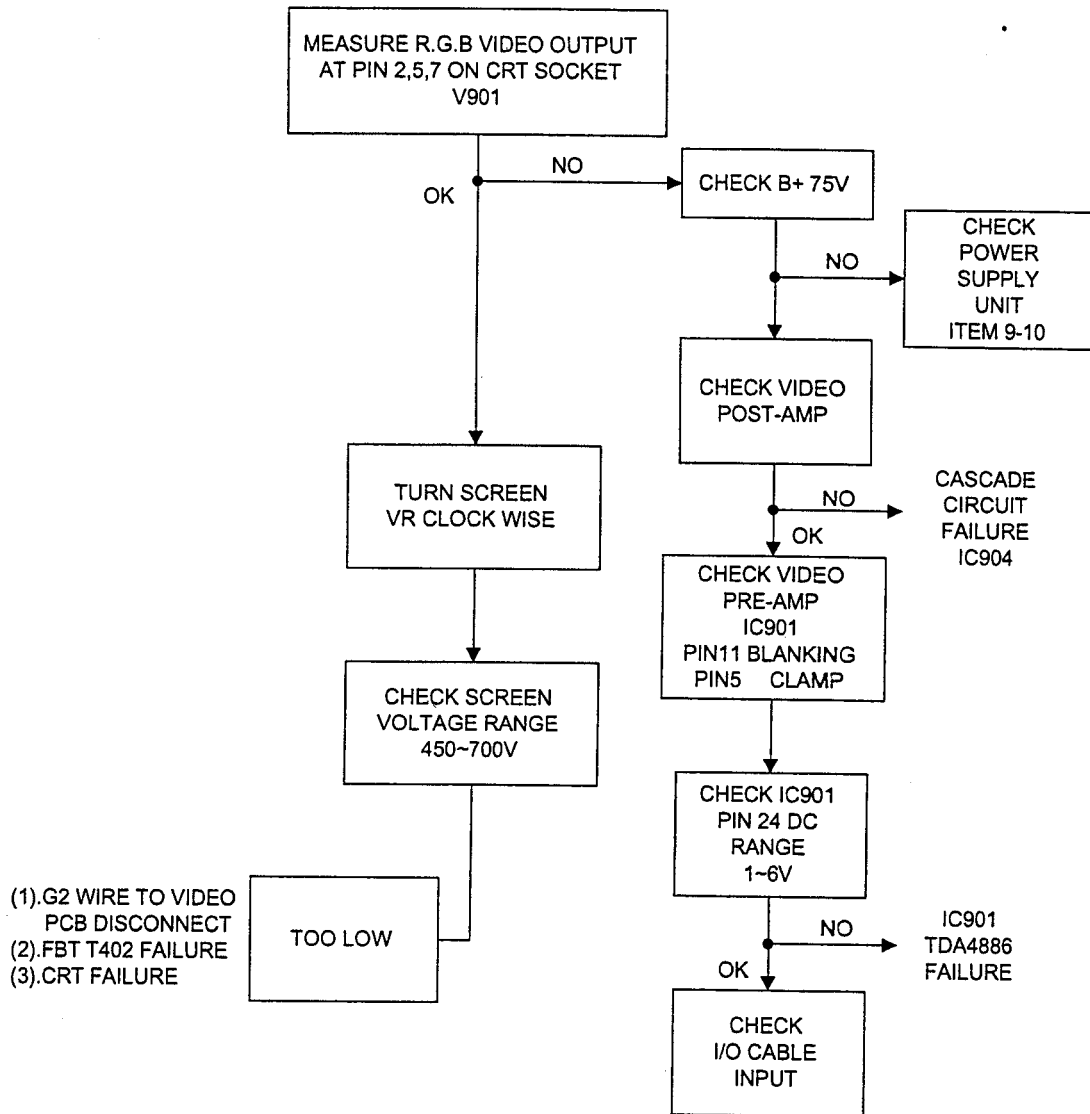
9. TROUBLE SHOOTING FLOW CHART

9-1. NO RASTER



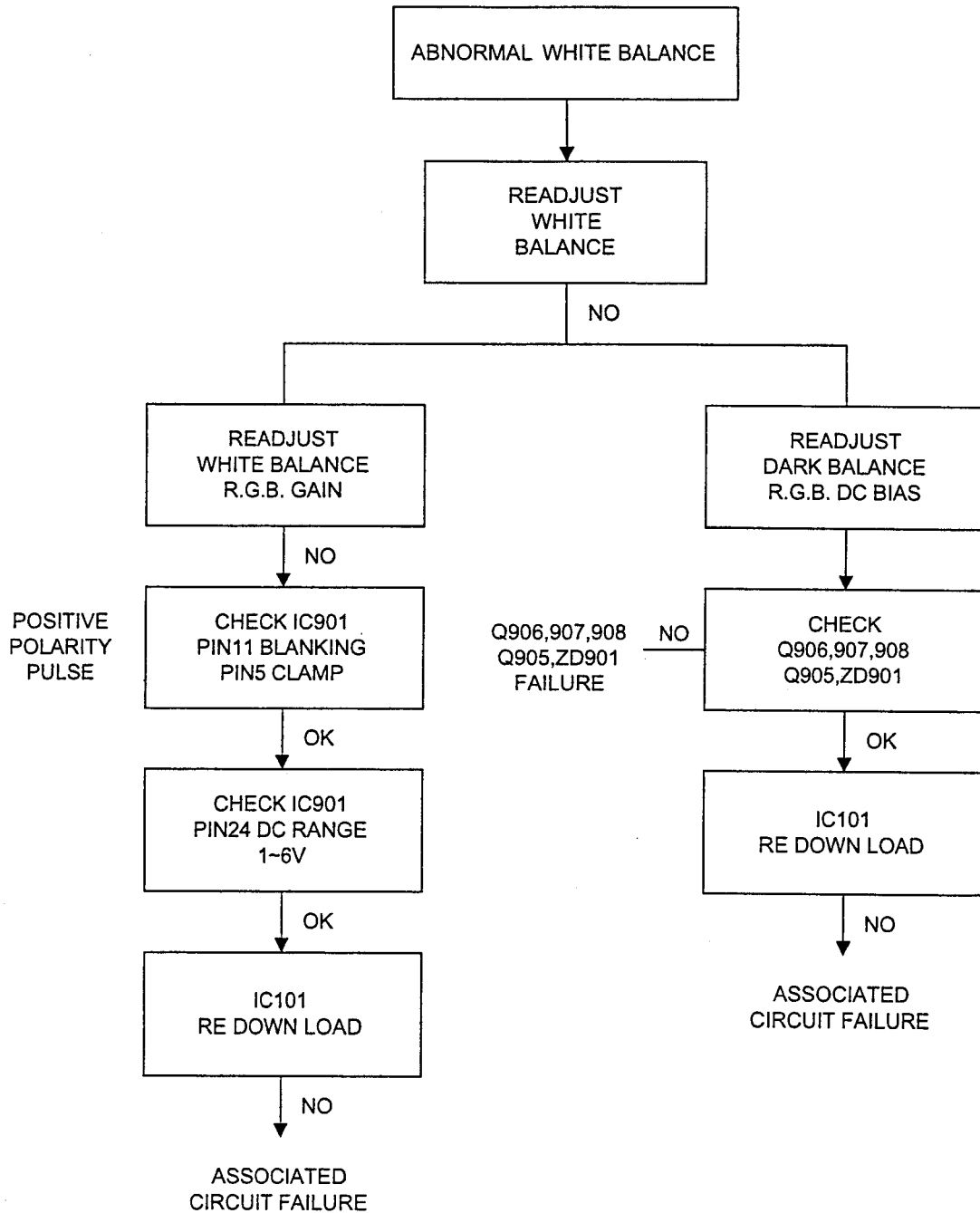
E70-3 Service Manual

9-2. ABNORMAL VIDEO CRT SCREEN



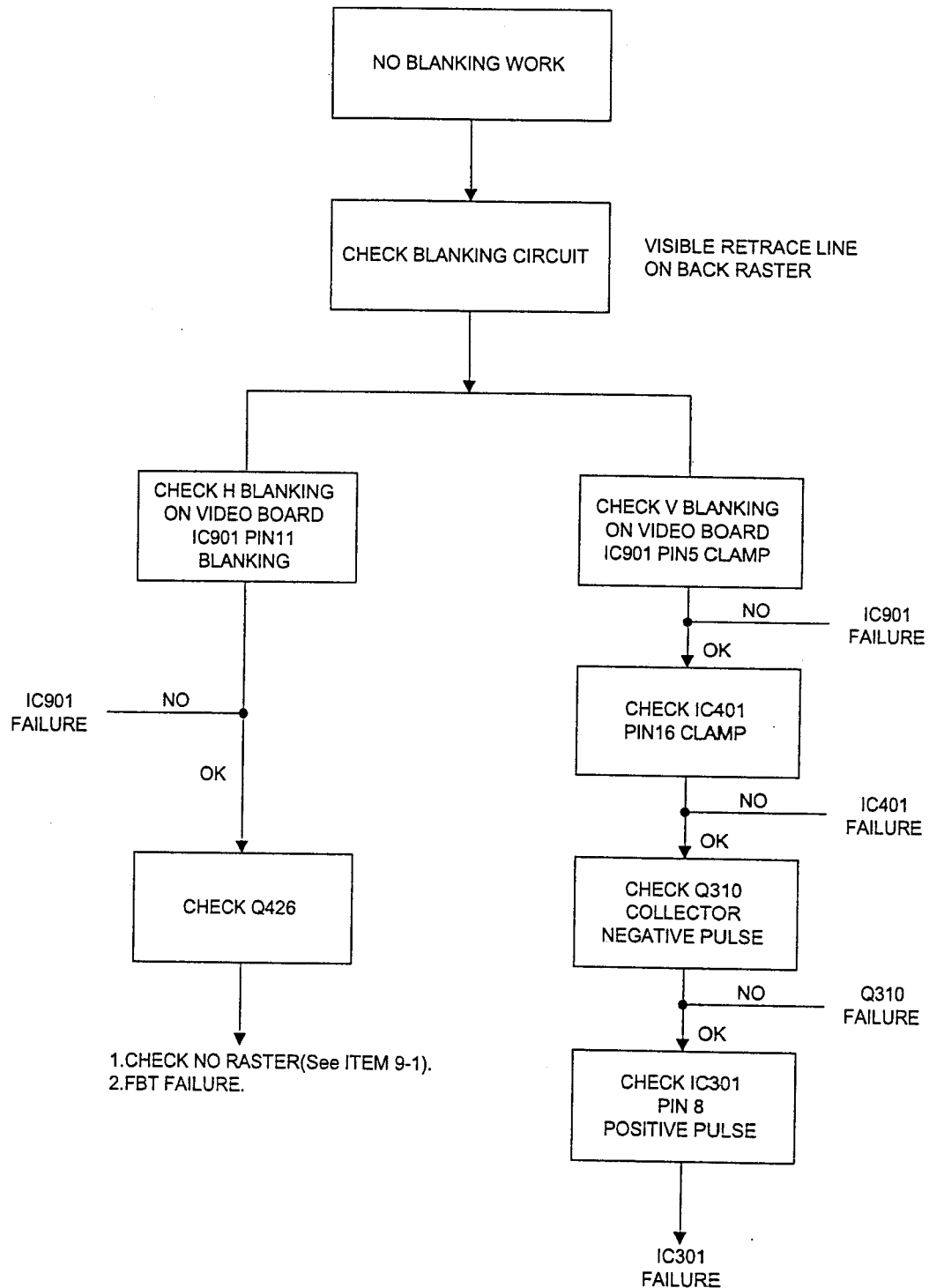
E70-3 Service Manual

9-3. ABNORMAL WHITE BALANCE



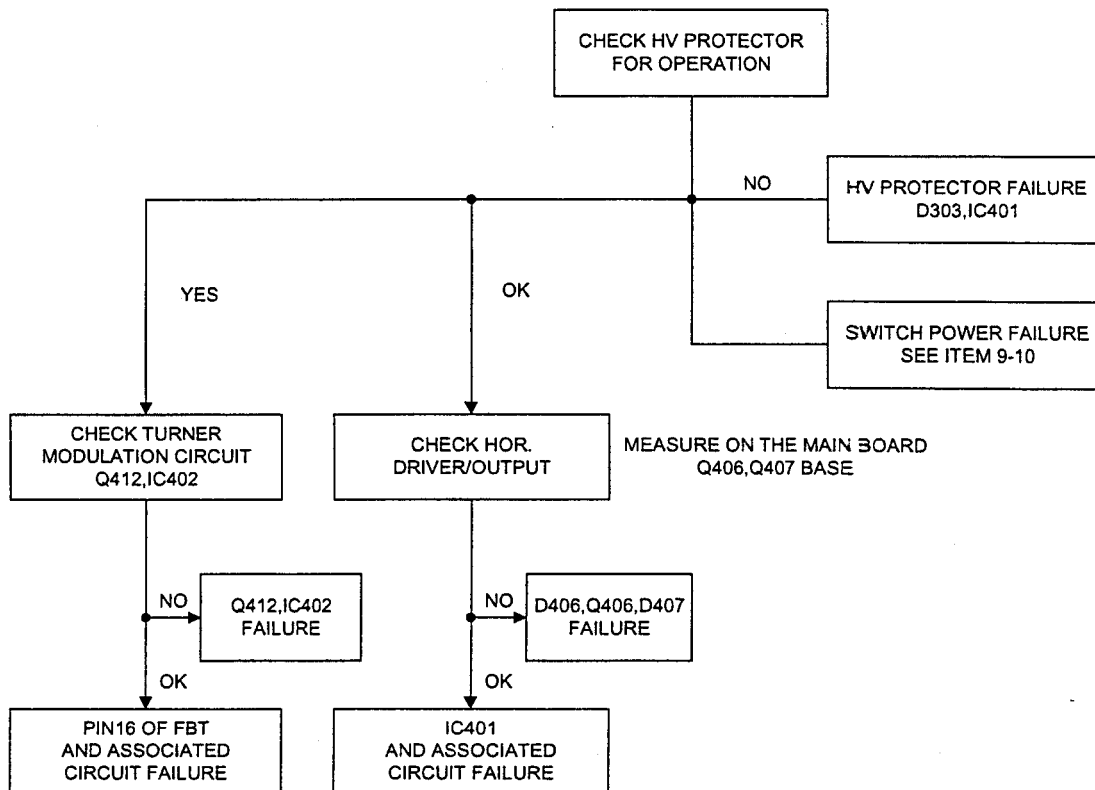
E70-3 Service Manual

9-4. NO BLANKING WORK



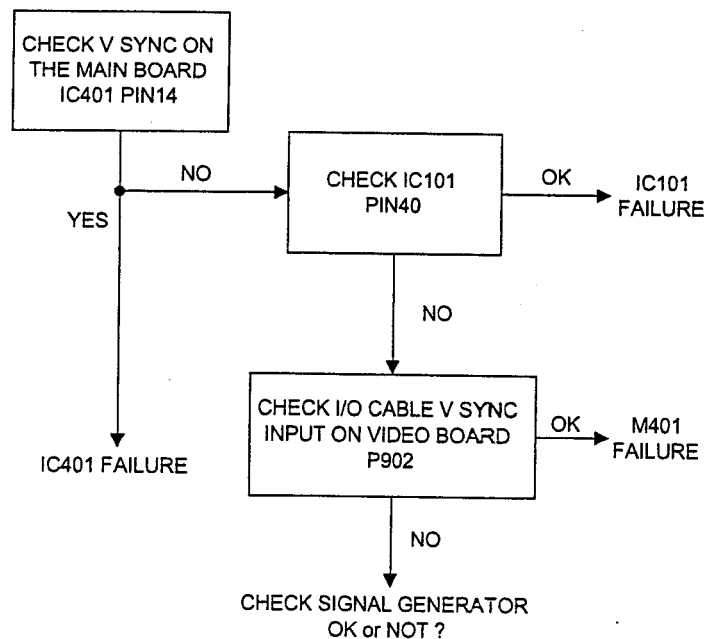
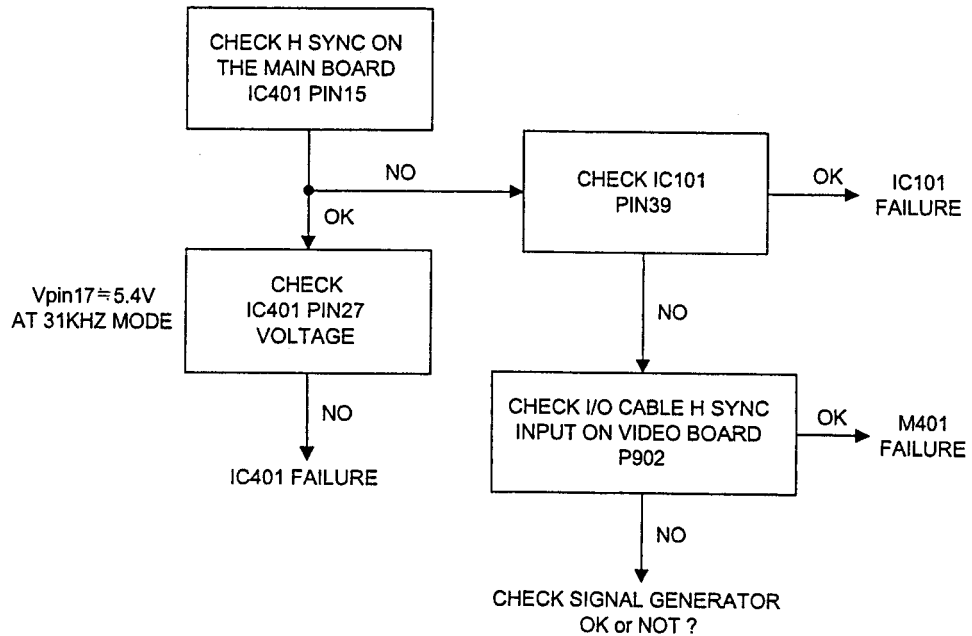
E70-3 Service Manual

9-5. H.OSC/DEF/HV CIRCUIT FAULT



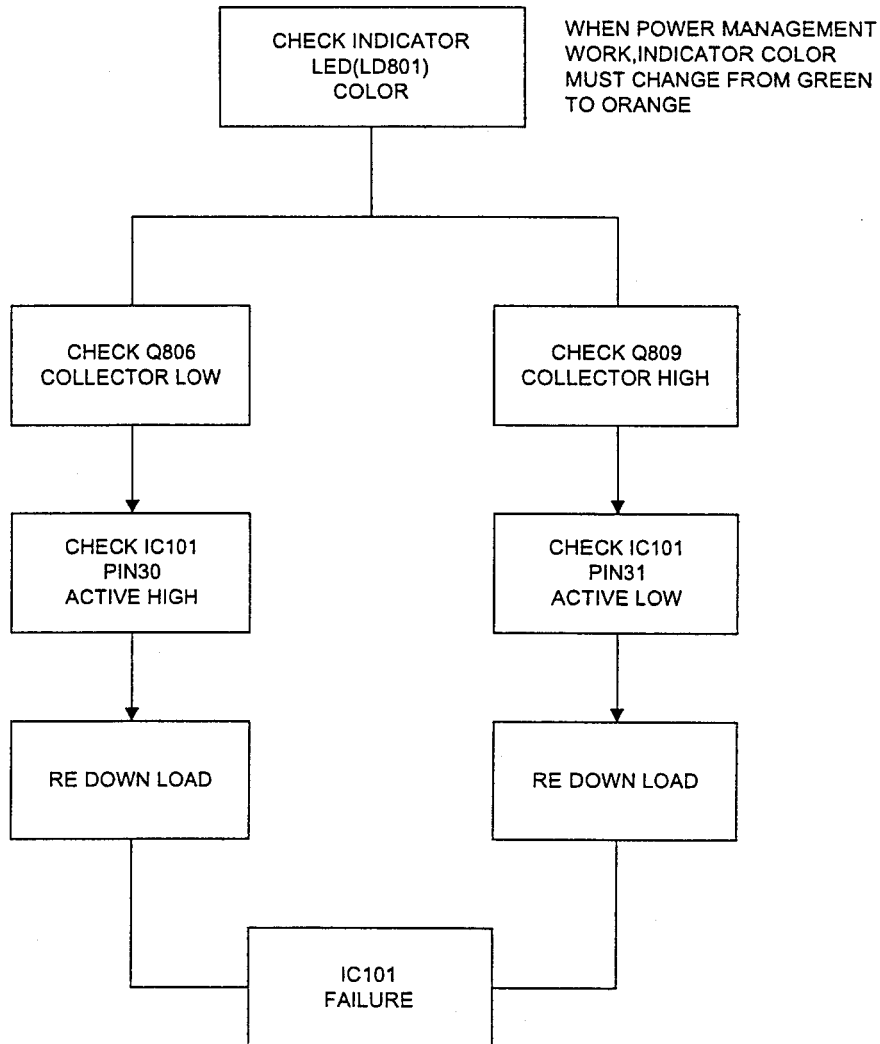
E70-3 Service Manual

9-6. FIV CONVERTER AND UNSTABLE SYNCHRONIZATION



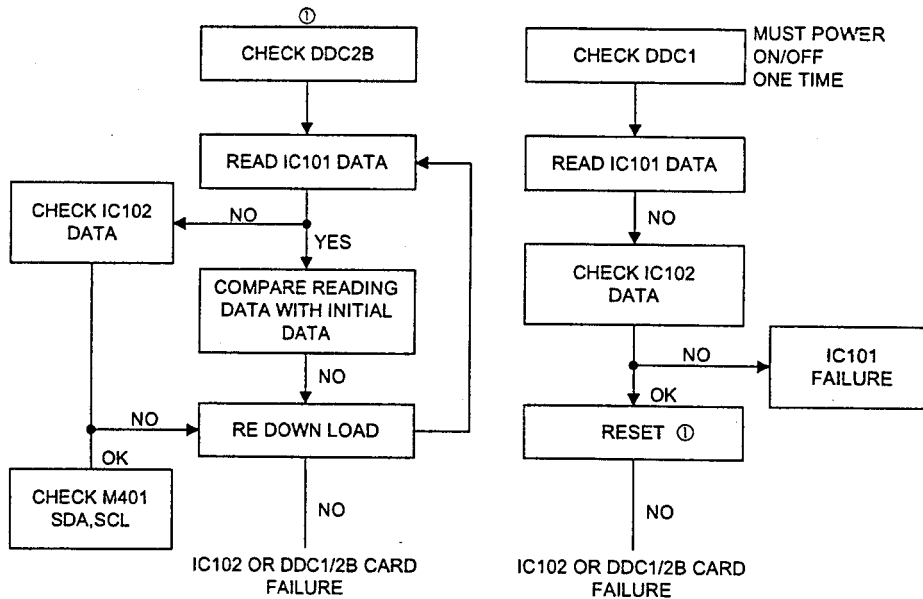
E70-3 Service Manual

9-7. NO POWER MANAGEMENT FUNCTION

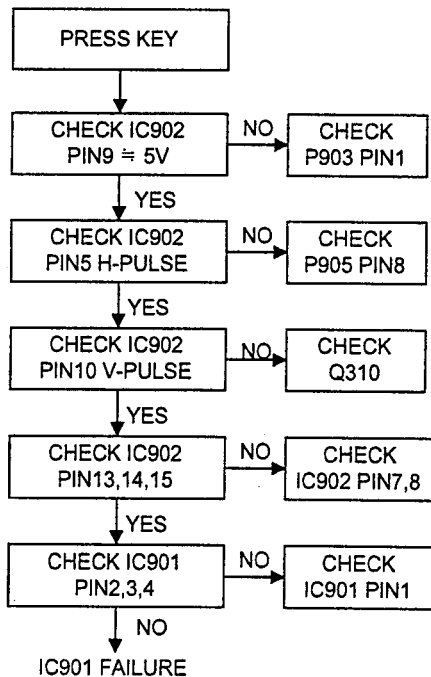


E70-3 Service Manual

9-8. NO DDC1/DDC2B



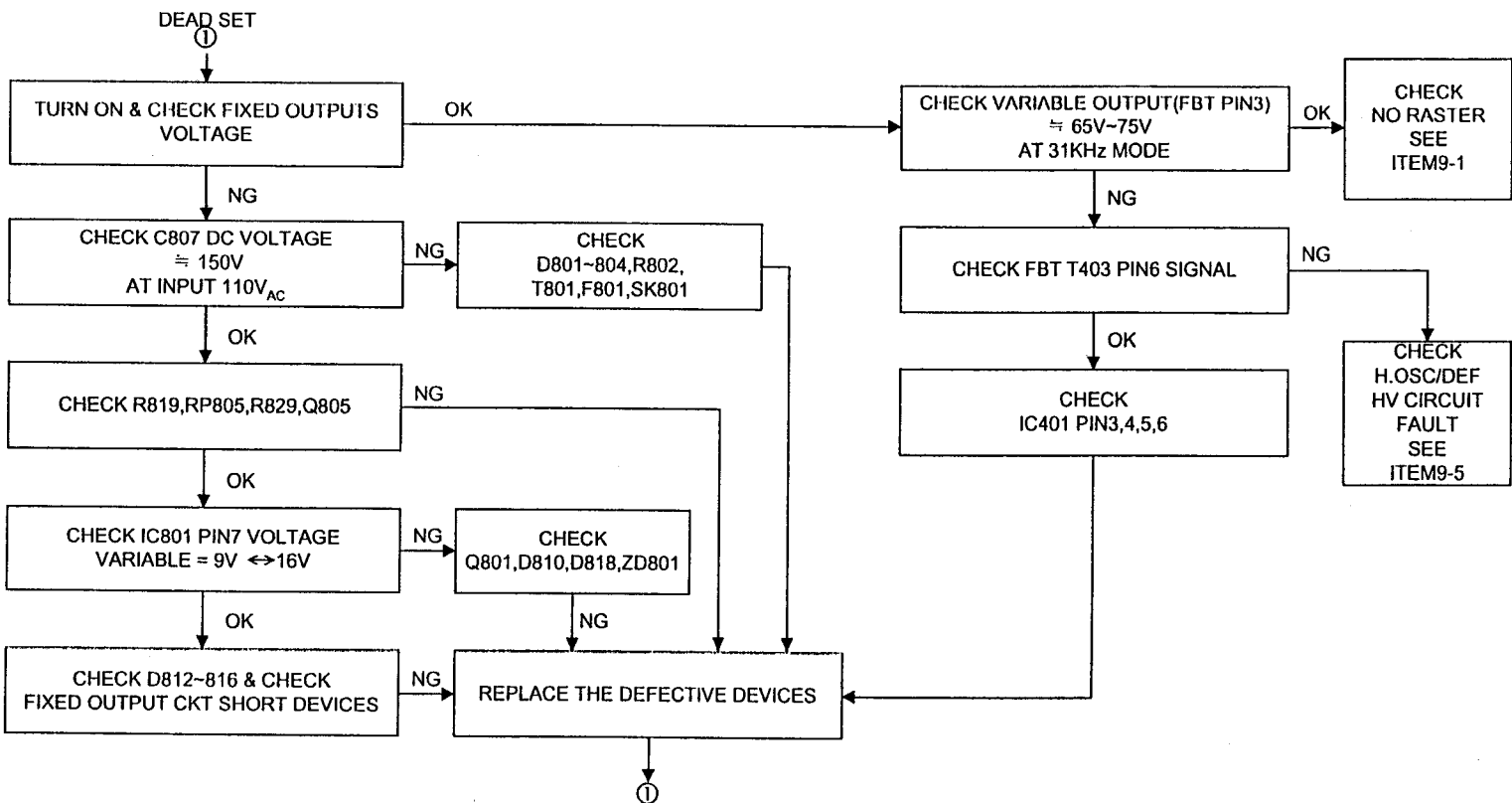
9-9. NO OSD FUNCTION



E70-3 Service Manual

9-10. POWER SUPPLY

POWER SUPPLY OUTPUT (A) VARIABLE OUTPUT : 65~150V(DEPENDING UPON H-SYNC FREQUENCY)
(B) FIXED OUTPUT : 8V,15V,75V,185V



E70-3 Service Manual

10. ADJUSTMENT

10-1. ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.

10-2. MAIN ADJUSTMENTS

NO.	FUNCTION	DESIGNATION
1.	B+ 6.3V ADJ.	VR801
2.	Raster Centering ADJ.(56K)	S401
3.	Focus ADJ.	FOCUS VR. (On flyback transformer)
4.	Raster Light Output	SCREEN VR. (On flyback transformer)
5.	HV ADJ.	VR404

10-3. ALIGNMENT PROCEDURES

Adjustment Conditions and Precautions:

- (1) Power supply voltage: AC 100~240V; 50/60 Hz.
- (2) Warm up time:
The display must be power ON for at least 20 minutes before starting alignments. This is especially critical in color temperature and white balance adjustments.
- (3) Signals: reference the front detail specifications and timing table.
Video : reference the front detail specifications.

1. Switching Regulator Unit:

Conditions: (a) Set timing 48KHZ 1024x768
(b) USE cross-hatch pattern, BRI./CONT. be set to max.
adjust VR801 to get 6.3 ± 0.05 V voltage at the cathode of D812.

2. Anode Voltage Unit:

Conditions: the same as ITEM 1.
adjust VR404 to get H.V 25.5 ± 0.1 KV for all tube.

3. RASTER CENTERING:

Conditions: the same as ITEM 1.
Switch S401 till the raster in the spec.

4. Adjustment of White Balance

- Conditions: (a) Warm up time must be over 30 minute.
(b) Set 48KHZ 1024x768 2" square & raster pattern.
(c) Degaussing one time.
(d) Adjust H-SIZE 300 ± 4 mm, V-SIZE 225 ± 4 mm.

(A) Enter color alignment system.

E70-3 Service Manual

- (B) 1. Set 9300 mode and then adjust SCREEN VR (G2) to 1.0FL.
 2. Enter full white pattern and start alignment system to adjust dark balance to $X=281 \pm 5$
 $Y=311 \pm 5$.
 3. disable R.G.B input and set BRI - DAC value equal to 50 and adjust SUB- BRI DAC value to get light output about $0.08 \pm 0.1FL$ (if impossible repeat ITEM B).
 4. Enter 2" square pattern and adjust SUB-CONT DAC value equal to $50 \pm 2.0FL$.
 5. Enter full white pattern and adjust ABL DAC value equal to $32 \pm 0.5FL$.
 (C) Set 6300 mode and repeat ITEM B then get $X=313 \pm 5$, $Y=329 \pm 5$, $Y=50 \pm 2.0FL$.
 (D) Set 5000 mode and repeat ITEM B then get $X=346 \pm 5$, $Y=359 \pm 5$, $Y=50 \pm 2.0FL$.

5. Focus Verification Condition:

- Conditions: (a) Set 48KHZ 1024x768 and EXT. BRIT. VR at detent, EXT. CONT. VR at max.
 (b) Use text mode pattern especially "@" character.
 (c) Let whole picture look clearly by adjusting static and dynamic focus VR.

6. Display performance and geometric adjustment:

Conditions:

- (1) equipment: a. 80486 PC. with printer port.
 b. I²C cable.
 (2) File : MAS.EXE (Main program).
 product file
 system file
 (3) Main menu: Press F12 Adjust geometry

KEY			select item
			Increase, Decrease DAC value by one step
			Big step INC, DEC DAC value
			Abort
			OK

E70-3 Service Manual

11. ELECTRICAL PARTS LIST

When you place a parts order, be sure to indicate the following data on the order:

- Location No.
- Parts No.
- Description

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
CRT P.C.BOARD					
C901		2291522391	CAP,MYL	CQ92M 0.022UF 100V	K
C902		2291522391	CAP,MYL	CQ92M 0.022UF 100V	K
C903		2291522391	CAP,MYL	CQ92M 0.022UF 100V	K
C907		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C908		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C909		2333610591	CAP,MINI ELE 105°C	CE04W 1.000UF 50V	M
C911		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C912		2333447691	CAP,MINI ELE 105°C	CE04W 47.000UF 25V	M
C913		2291510391	CAP,MYL	CQ92M 0.010UF 100V	K
C914		2291510391	CAP,MYL	CQ92M 0.010UF 100V	K
C917		2272110191	CAP,CER	CC45CH 100.000PF 50V	J
C919		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C920		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C921		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C923		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C924		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C925		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C926		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C927		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C928		2333810691	CAP,MINI ELE 105°C	CE04W 10.000UF 100V	M
C929		2333910591	CAP,MINI ELE 105°C	CE04W 1.000UF 160V	M
C930		2333810691	CAP,MINI ELE 105°C	CE04W 10.000UF 100V	M
C931		2333910591	CAP,MINI ELE 105°C	CE04W 1.000UF 160V	M
C932		2333810691	CAP,MINI ELE 105°C	CE04W 10.000UF 100V	M
C933		2333910591	CAP,MINI ELE 105°C	CE04W 1.000UF 160V	M
C935		2333822691	CAP,MINI ELE 105°C	CE04W 22.000UF 100V	M
C936		2285710312	CAP,CER	CK45E 0.010UF 1KV	M
C937		2285210291	CAP,CER	CK45B 1000.000PF 2KV	K
C938		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C939		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C940		2283610391	CAP,CER	CK45E 0.010UF 500V	M
C941		2302210491	CAP,MTL	CF93M 0.100UF 100V	K
C942		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C944		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C945		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C946		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C947		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C948		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C949		2302210491	CAP,MTL	CF93M 0.100UF 100V	K
C950		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C951		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C952		2291510291	CAP,MYL	CQ92M 1000.000PF 100V	K
C953		2272110191	CAP,CER	CC45CH 100.000PF 50V	J
C954		2272110191	CAP,CER	CC45CH 100.000PF 50V	J
C955		2272122191	CAP,CER	CC45CH 220.000PF 50V	J
C956		2333822691	CAP,MINI ELE 105°C	CE04W 22.000UF 100V	M
C965		2333610691	CAP,MINI ELE 105°C	CE04W 10.000UF 50V	M
C966		2272168091	CAP,CER	CC45CH 68.000PF 50V	J
D901		2363600195	DIODE,SWITCH	1N4148	
D902		2363600195	DIODE,SWITCH	1N4148	
D903		2363600195	DIODE,SWITCH	1N4148	
D909	RA	2363600795	DIODE,SWITCH	BAV20(150V)	PHILIPS
D909	RB	2363600895	DIODE,SWITCH	BAV21 VR200V	PHILIPS
D910	RA	2363600795	DIODE,SWITCH	BAV20(150V)	PHILIPS

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
D910	RB	2363600895	DIODE,SWITCH	BAV21 VR200V	PHILIPS
D911	RA	2363600795	DIODE,SWITCH	BAV20(150V)	PHILIPS
D911	RB	2363600895	DIODE,SWITCH	BAV21 VR200V	PHILIPS
D913	RA	2363600795	DIODE,SWITCH	BAV20(150V)	PHILIPS
D913	RB	2363600895	DIODE,SWITCH	BAV21 VR200V	PHILIPS
D915	RA	2363600795	DIODE,SWITCH	BAV20(150V)	PHILIPS
D915	RB	2363600895	DIODE,SWITCH	BAV21 VR200V	PHILIPS
D917	RA	2363600795	DIODE,SWITCH	BAV20(150V)	PHILIPS
D917	RB	2363600895	DIODE,SWITCH	BAV21 VR200V	PHILIPS
D918		2363219895	DIODE,RECT	FUF4004	FAGOR
IC901		2365320700	IC,LINEAR	TDA4886	PHILIPS
IC902		2365322900	IC,LINEAR	MTV021N-05	MYSON
IC904		2365322400	IC,LINEAR	LM2438T	NS
L901		2379101595	FERRITE CORE	3.5X4.5X0.8	
L902		2379101495	FERRITE CORE	3.5X9X0.8	
L904		2379101495	FERRITE CORE	3.5X9X0.8	
L905		2372282895	COIL,PEAKING	0.82UH K R<0.14	1875mA
L906		2372282895	COIL,PEAKING	0.82UH K R<0.14	1875mA
L907		2372282895	COIL,PEAKING	0.82UH K R<0.14	1875mA
L908		2379101495	FERRITE CORE	3.5X9X0.8	
L910		2232610295	RES,CBN 1/2	RD 1/2W 1.00K	J
M901		2427300030	LUG W/WIRE	1441BS-2/B IN 1015#18	190L
M902		2427307006	LUG W/WIRE	B-IN/4 φ RING 1007#18	150L BK
M903		2427307006	LUG W/WIRE	B-IN/4 φ RING 1007#18	150L BK
P902	RA	2404390211	CONNECTOR	JWT A2501WV2-12P 12PIN	P=2.5mm
P902	RB	2404338011	CONNECTOR	LEOCO 2521 12 PIN	P=2.5
P907	RA	2407402800	SOCKET	CRT SOCKET HPS0720-011	1100
P907	RB	2407402900	SOCKET	CRT SOCKET CVT3280-2202	SMK
P907	RC	2407403300	SOCKET	ISDW03S-L	INCHANG
Q411	RD	2361605900	FET,N-CH	IRF630A	FAIRCHILD
Q905		2361301291	XISTOR,NPN R	2SC2120(Y)	TOSHIBA
Q906	RA	2361314791	XISTOR,NPN R	BF422	TOSHIBA
Q906	RB	2361318391	XISTOR,NPN R	BF422	PHILIPS
Q907	RA	2361314791	XISTOR,NPN R	BF422	TOSHIBA
Q907	RB	2361318391	XISTOR,NPN R	BF422	PHILIPS
Q908	RA	2361314791	XISTOR,NPN R	BF422	TOSHIBA
Q908	RB	2361318391	XISTOR,NPN R	BF422	PHILIPS
Q909	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q909	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q909	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
R901		2233447095	RES,CBN 1/4 S	RD 1/4WS 47.00	J
R902		2239207505	RES,PRE 1/4 S	RN 1/4WS 75.00	F
R903		2233447095	RES,CBN 1/4 S	RD 1/4WS 47.00	J
R904		2239207505	RES,PRE 1/4 S	RN 1/4WS 75.00	F
R905		2233447095	RES,CBN 1/4 S	RD 1/4WS 47.00	J
R906		2239207505	RES,PRE 1/4 S	RN 1/4WS 75.00	F
R907		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R908		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R909		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R910		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R911		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R918		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R919		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R920		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R921		2372210195	COIL,PEAKING	100.00UH K R<4.10	1165mA
R922		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R923		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R924		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R925		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R926		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R928		2233456295	RES,CBN 1/4 S	RD 1/4WS 5.60K	J
R929		2233456295	RES,CBN 1/4 S	RD 1/4WS 5.60K	J
R930		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R931		2233410595	RES,CBN 1/4 S	RD 1/4WS 1.00M	J

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R932		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R933		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R935		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R936		2233424295	RES,CBN 1/4 S	RD 1/4WS 2.40K	J
R937		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R938		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R939		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R940		2233422495	RES,CBN 1/4 S	RD 1/4WS 220.00K	J
R941		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R942		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R944		2233415195	RES,CBN 1/4 S	RD 1/4WS 150.00	J
R945		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R946		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R947		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R948		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R949		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R950		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R952		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R953		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R956		2233422495	RES,CBN 1/4 S	RD 1/4WS 220.00K	J
R957		2232647095	RES,CBN 1/2	RD 1/2W 47.00	J
R960		2233422495	RES,CBN 1/4 S	RD 1/4WS 220.00K	J
R961		2232647095	RES,CBN 1/2	RD 1/2W 47.00	J
R964		2232647095	RES,CBN 1/2	RD 1/2W 47.00	J
R965		2233422495	RES,CBN 1/4 S	RD 1/4WS 220.00K	J
R966		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R967		2235427003	RES,MTL 1	RS 1W 27.00	J
R969		2232651395	RES,CBN 1/2	RD 1/2W 51.00K	J
R970		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R971		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R972		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R973		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
R974		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
R975		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
R976		2232647095	RES,CBN 1/2	RD 1/2W 47.00	J
R977		2233422095	RES,CBN 1/4 S	RD 1/4WS 22.00	J
R978		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R979		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R980		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R981		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R982		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R983		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
TP901		2404200100	PIN PLUG	UZ-006P(1P-A)	
TP904		2404200100	PIN PLUG	UZ-006P(1P-A)	
U002		2202110501	PC BOARD	JD177L CRT 94V0 142X104 V2.05	
ZD901	RA	2363510895	DIODE,ZENER	HZ9C-1 8.9-9.3V 0.5W	HITACHI
ZD901	RB	2363501195	DIODE,ZENER	MTZJ9.1B	
ZD901	RC	2363515595	DIODE,ZENER	BZX79C9V1	PHILIPS
ZD903	RA	2363500995	DIODE,ZENER	HZ5C-2 5.0-5.2V 0.5W	HITACHI
ZD903	RB	2363506295	DIODE,ZENER	MTZJ5.1C	ROHM
ZD903	RC	2363515695	DIODE,ZENER	BZX79C5V1	PHILIPS

MAIN P.C.BOARD

C103	2333622591	CAP,MINI ELE 105°C	CE04W	2.200UF	50V	M
C104	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C105	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C107	2272133091	CAP,CER	CC45CH	33.000PF	50V	J
C108	2272133091	CAP,CER	CC45CH	33.000PF	50V	J
C110	2272110191	CAP,CER	CC45CH	100.000PF	50V	J
C111	2272110191	CAP,CER	CC45CH	100.000PF	50V	J
C112	2272110191	CAP,CER	CC45CH	100.000PF	50V	J
C113	2272110191	CAP,CER	CC45CH	100.000PF	50V	J
C114	2333410791	CAP,MINI ELE 105°C	CE04W	100.000UF	25V	M

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION			REMARK
C309		2333422791	CAP,MINI ELE 105°C	CE04W	220.000UF	25V	M
C310		2291547391	CAP,MYL	CQ92M	0.047UF	100V	K
C311		2333822691	CAP,MINI ELE 105°C	CE04W	22.000UF	100V	M
C313		2303210412	CAP,MTL	CF93M	0.100UF	250V	K
C314		2291522391	CAP,MYL	CQ92M	0.022UF	100V	K
C315		2291510391	CAP,MYL	CQ92M	0.010UF	100V	K
C316		2285168191	CAP,CER	CK45B	680.000PF	1KV	K
C317		2333810691	CAP,MINI ELE 105°C	CE04W	10.000UF	100V	M
C318		2291522391	CAP,MYL	CQ92M	0.022UF	100V	K
C319		2291522391	CAP,MYL	CQ92M	0.022UF	100V	K
C320		2302133491	CAP,MTL	CF93M	0.330UF	100V	J
C321		2291510291	CAP,MYL	CQ92M	1000.000PF	100V	K
C403		2291512391	CAP,MYL	CQ92M	0.012UF	100V	K
C404		2291547391	CAP,MYL	CQ92M	0.047UF	100V	K
C405		2291533291	CAP,MYL	CQ92M	3300.000PF	100V	K
C406		2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C407		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C408		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C409		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C410		2291510391	CAP,MYL	CQ92M	0.010UF	100V	K
C411		2295210391	CAP,PPP	CQ93T	0.010UF	100V	G
C412		2291568291	CAP,MYL	CQ92M	6800.000PF	100V	K
C413		2333447712	CAP,MINI ELE 105°C	CE04W	470.000UF	25V	M
C414		2281410491	CAP,CER	CK45F	0.100UF	50V	Z
C415		2281410491	CAP,CER	CK45F	0.100UF	50V	Z
C416		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C417		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C418		2304210412	CAP,MTL	CF93M	0.100UF	400V	K
C420		2333410791	CAP,MINI ELE 105°C	CE04W	100.000UF	25V	M
C421	RA	2310333212	CAP,MTL PHA	CF93T	3300.000PF	2000V	J
C421	RB	2310133212	CAP,MTL	CF93T	3300.000PF	2000V	J
C421	RC	2298833212	CAP,PPP	CQ93T	3300.000PF	2000V	J
C422	RA	2310356212	CAP,MTL PHA	CF93T	5600.000PF	2000V	J
C422	RB	2310156212	CAP,MTL	CF93T	5600.000PF	2000V	J
C422	RC	2298856212	CAP,PPP	CQ93T	5600.000PF	2000V	J
C423		2309310512	CAP,MTL	CF93T	1.000UF	250V	J
C424		2311539412	CAP,MTL	CF93T	0.390UF	400V	J
C425		2309333412	CAP,MTL	CF93T	0.330UF	250V	J
C426		2291510391	CAP,MYL	CQ92M	0.010UF	100V	K
C427		2291547391	CAP,MYL	CQ92M	0.047UF	100V	K
C429		2333647391	CAP,MINI ELE 105°C	CE04W	4.700UF	50V	M
C430		2334110612	CAP,MINI ELE 105°C	CE04W	10.000UF	250V	M
C432		2291547391	CAP,MYL	CQ92M	0.047UF	100V	K
C433		2333622591	CAP,MINI ELE 105°C	CE04W	2.200UF	50V	M
C435		2291522491	CAP,MYL	CQ92M	0.220UF	100V	K
C437		2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C438		2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C440		2333622691	CAP,MINI ELE 105°C	CE04W	22.000UF	50V	M
C441		2291547291	CAP,MYL	CQ92M	4700.000PF	100V	K
C449		2286110112	CAP,CER	CK45BN	100.000PF	2KV	K
C450		2291522291	CAP,MYL	CQ92M	2200.000PF	100V	K
C463		2285122191	CAP,CER	CK45B	220.000PF	1KV	K
C464		2285168191	CAP,CER	CK45B	680.000PF	1KV	K
C465		2333610591	CAP,MINI ELE 105°C	CE04W	1.000UF	50V	M
C469		2285110291	CAP,CER	CK45B	1000.000PF	1KV	K
C470		2334110591	CAP,MINI ELE 105°C	CE04W	1.000UF	250V	M
C471		2291510291	CAP,MYL	CQ92M	1000.000PF	100V	K
C473		2333647391	CAP,MINI ELE 105°C	CE04W	4.700UF	50V	M
C474		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C475		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C476		2291512391	CAP,MYL	CQ92M	0.012UF	100V	K
C477		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K
C479		2291547391	CAP,MYL	CQ92M	0.047UF	100V	K
C481		2303210412	CAP,MTL	CF93M	0.100UF	250V	K

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION		REMARK
C482		2291533291	CAP,MYL	CQ92M	3300.000PF 100V	K
C483		2291510391	CAP,MYL	CQ92M	0.010UF 100V	K
C486		2303215412	CAP,MTL	CF93M	0.150UF 250V	K
C501		2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF 50V	M
C503		2333410791	CAP,MINI ELE 105°C	CE04W	100.000UF 25V	M
C701		2281410491	CAP,CER	CK45F	0.100UF 50V	Z
C702		2320622591	CAP,ELE NP 105°C	CE04W	2.200UF 50V	M
C703		2291510491	CAP,MYL	CQ92M	0.100UF 100V	K
C705		2304210312	CAP,MTL	CF93M	0.010UF 400V	K
C706		2304233312	CAP,MTL	CF93M	0.033UF 400V	K
C801		2287247212	CAP,CER	CK45F	4700.000PF 250VAC	M
C802		2300822401	CAP,MTL		0.220UF 275V	M
C807		232522714	CAP,ELE 85°C	CE69W	220.000UF 400V	M
C807M		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m		
C808		2281410491	CAP,CER	CK45F	0.100UF 50V	Z
C809		2291510391	CAP,MYL	CQ92M	0.010UF 100V	K
C810		2333410791	CAP,MINI ELE 105°C	CE04W	100.000UF 25V	M
C811		2333633691	CAP,MINI ELE 105°C	CE04W	33.000UF 50V	M
C812		2281410291	CAP,CER	CK45F	1000.000PF 50V	Z
C813		2333410791	CAP,MINI ELE 105°C	CE04W	100.000UF 25V	M
C814		2272110191	CAP,CER	CC45CH	100.000PF 50V	J
C815		2285122191	CAP,CER	CK45B	220.000PF 1KV	K
C816		2303210312	CAP,MTL	CF93M	0.010UF 250V	K
C817		2333410812	CAP,MINI ELE 105°C	CE04W	1000.000UF 25V	M
C818		2333410812	CAP,MINI ELE 105°C	CE04W	1000.000UF 25V	M
C819		2333810712	CAP,MINI ELE 105°C	CE04W	100.000UF 100V	M
C820		2334110712	CAP,MINI ELE 105°C	CE04W	100.000UF 250V	M
C822		2333410791	CAP,MINI ELE 105°C	CE04W	100.000UF 25V	M
C824		2333422791	CAP,MINI ELE 105°C	CE04W	220.000UF 25V	M
C825		2333422791	CAP,MINI ELE 105°C	CE04W	220.000UF 25V	M
C831		2291510391	CAP,MYL	CQ92M	0.010UF 100V	K
C832		2281410491	CAP,CER	CK45F	0.100UF 50V	Z
D101		2363600195	DIODE,SWITCH	1N4148		
D303	RA	2363219895	DIODE,RECT	FUF4004	FAGOR	
D303	RB	2363219795	DIODE,RECT	10ELS 4	IR(NT)	
D303	RC	2363220395	DIODE,RECT	UF4004G T/B	PEC	
D304		2363600195	DIODE,SWITCH	1N4148		
D401		2363600195	DIODE,SWITCH	1N4148		
D402	RA	2363219695	DIODE,RECT	10ELS 2	IR(NT)	
D402	RB	2363221995	DIODE,RECT	PG102R	PEC	
D403		2363600195	DIODE,SWITCH	1N4148		
D404		2363600195	DIODE,SWITCH	1N4148		
D405		2363212012	DIODE,RECT	31DF4 3.0A 400V		
D406		2363600195	DIODE,SWITCH	1N4148		
D407		2363220895	DIODE,RECT	11EQ04	IR(NT)	
D408	RA	2363219995	DIODE,RECT	FUF4005	FAGOR	
D408	RB	2363221495	DIODE,RECT	UF4005G	PEC.	
D409	RA	2363214300	DIODE,RECT	FMP-G2FS	SANKEN	
D409	RB	2363213800	DIODE,RECT	5TUZ47C TR 1US 15A	TOSHIBA	
D409	RC	2363223400	DIODE,RECT	BY329X-1500	PHILIPS	
D410		2363600195	DIODE,SWITCH	1N4148		
D411	RA	2363219895	DIODE,RECT	FUF4004	FAGOR	
D411	RB	2363219795	DIODE,RECT	10ELS 4	IR(NT)	
D411	RC	2363220395	DIODE,RECT	UF4004G T/B	PEC	
D412	RA	2363219895	DIODE,RECT	FUF4004	FAGOR	
D412	RB	2363219795	DIODE,RECT	10ELS 4	IR(NT)	
D412	RC	2363220395	DIODE,RECT	UF4004G T/B	PEC	
D413		2363600195	DIODE,SWITCH	1N4148		
D414	RA	2363206495	DIODE,RECT	RGP10D	FAGOR	
D414	RB	2363221995	DIODE,RECT	PG102R	PEC	
D415		2363600195	DIODE,SWITCH	1N4148		
D418		2363600195	DIODE,SWITCH	1N4148		
D419	RA	2363218495	DIODE,RECT	BYD33J	PHILIPS	
D419	RB	2363219995	DIODE,RECT	FUF4005	FAGOR	

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
D419	RC	2363221495	DIODE,RECT	UF4005G	PEC.
D420		2363600195	DIODE,SWITCH	1N4148	
D421		2363600195	DIODE,SWITCH	1N4148	
D422	RA	2363219895	DIODE,RECT	FUF4004	FAGOR
D422	RB	2363219795	DIODE,RECT	10ELS 4	IR(NT)
D422	RC	2363220395	DIODE,RECT	UF4004G T/B	PEC
D431	RA	2363219695	DIODE,RECT	10ELS 2	IR(NT)
D431	RB	2363221995	DIODE,RECT	PG102R	PEC
D434		2363600195	DIODE,SWITCH	1N4148	
D701		2363600195	DIODE,SWITCH	1N4148	
D801	RA	2363216812	DIODE,RECT	1N5406	TSC
D801	RB	2363217595	DIODE,RECT	20D8	IR
D801	RC	2363222012	DIODE,RECT	PG5406	PEC
D801	RD	2363221195	DIODE,RECT	PG208	PEC
D802	RA	2363216812	DIODE,RECT	1N5406	TSC
D802	RB	2363217595	DIODE,RECT	20D8	IR
D802	RC	2363222012	DIODE,RECT	PG5406	PEC
D802	RD	2363221195	DIODE,RECT	PG208	PEC
D803	RA	2363216812	DIODE,RECT	1N5406	TSC
D803	RB	2363217595	DIODE,RECT	20D8	IR
D803	RC	2363222012	DIODE,RECT	PG5406	PEC
D803	RD	2363221195	DIODE,RECT	PG208	PEC
D804	RA	2363216812	DIODE,RECT	1N5406	TSC
D804	RB	2363217595	DIODE,RECT	20D8	IR
D804	RC	2363222012	DIODE,RECT	PG5406	PEC
D804	RD	2363221195	DIODE,RECT	PG208	PEC
D805		2363600195	DIODE,SWITCH	1N4148	
D806		2363600195	DIODE,SWITCH	1N4148	
D808		2363600195	DIODE,SWITCH	1N4148	
D809	RA	2363215495	DIODE,RECT	BYV26C	PHILIPS
D809	RB	2363201195	DIODE,RECT	BA159	FAGOR
D810	RA	2363215495	DIODE,RECT	BYV26C	PHILIPS
D810	RB	2363221995	DIODE,RECT	PG102R	PEC
D811		2363600195	DIODE,SWITCH	1N4148	
D812	RA	2363214712	DIODE,RECT	30DF2	IR
D812	RB	2363212312	DIODE,RECT	FUF5402 3.0A 200V	FAGOR
D812	RC	2363220512	DIODE,RECT	UF5402GF2	PEC
D813		2363231612	DIODE,RECT	31DF2	IR(NT)
D814		2363214812	DIODE,RECT	31DF6	IR
D815		2363214812	DIODE,RECT	31DF6	IR
D818		2363600195	DIODE,SWITCH	1N4148	
D819		2363600195	DIODE,SWITCH	1N4148	
D821		2363600195	DIODE,SWITCH	1N4148	
D828		2363224195	DIODE,RECT	1N4007	PEC
F801		2213125207	FUSE	LITTEL 21502.5 2.5A 250V SB	
F801M		2407200791	HOLDER,FUSE	FC-05C	
IC101		2365412500	IC,DIGITAL	WT60P	WELTREND
IC102	RA	2365411100	IC,DIGITAL	AT24C08	ATMEL
IC102	RB	2365411600	IC,DIGITAL	M24C08-BN6	SGS
IC102	RC	2365415700	IC,DIGITAL	CAT24WC08P	CATALYST
IC301		2365316900	IC,LINEAR	TDA4866	PHILIPS
IC401		2365321000	IC,LINEAR	TDA4853	PHILIPS
IC402	RA	2365307391	IC,LINEAR	TL431CLP	MOTOROLA
IC402	RB	2365319391	IC,LINEAR	TL431CLP	TI
IC801	RA	2365311500	IC,LINEAR	KA3842B	FAIRCHILD
IC801	RB	2365313600	IC,LINEAR	UC3842N	SGS-THOM
IC802	RA	2365313800	IC,LINEAR	KA7805	FAIRCHILD
IC802	RB	2365313810	IC,LINEAR	MC7805B	MOTOROLA
J115		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
J117		2379101595	FERRITE CORE	3.5X4.5X0.8	
LD801		2363703600	LED	LTL-30EDJ	LITEON
L403		2371132800	COIL,CHOKE	0.5*10.5T 3.52uH	
L404		2385503600	COIL,H LNR	JD199A 0.1 ϕ *80*16.5T 5uH/0A	
L405		2371131900	COIL,CHOKE	JD157P 95uH	

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
L406		2371131500	COIL,CHOKE	JD156H 9mH/2UEW0.2 ϕ 440.5T	
L407		2371132700	COIL,CHOKE	JD177P3 0.2 ϕ *110.5T 400uH	
L408		2379101495	FERRITE CORE	3.5X9X0.8	
L409	RA	2379103200	FERRITE CORE	CORE 17.5*9.5*28.5L	
L409	RB	2379103700	FERRITE CORE	CORE 17.5*9.5*28.L URITE	
L410		2379101595	FERRITE CORE	3.5X4.5X0.8	
L412		2371132900	COIL,CHOKE	JD177P3 0.3*121.5 600uH	
L415		2379101595	FERRITE CORE	3.5X4.5X0.8	
L416		2379101595	FERRITE CORE	3.5X4.5X0.8	
L801		2371110400	COIL,CHOKE	HUA HJC-	B
L802		2371110400	COIL,CHOKE	HUA HJC-	B
L804		2379101495	FERRITE CORE	3.5X9X0.8	
L805		2379101495	FERRITE CORE	3.5X9X0.8	
L806		2379101495	FERRITE CORE	3.5X9X0.8	
L807		2379101495	FERRITE CORE	3.5X9X0.8	
L809		2379101595	FERRITE CORE	3.5X4.5X0.8	
L814		2379101595	FERRITE CORE	3.5X4.5X0.8	
M401		2427412450	WIRE HARNESS	JD157P 15P B-IN 1007#26 340L	
M402		2427309006	LUG W/WIRE	9193TCB W 1007#22 450L	
M403		2427309024	LUG W/WIRE	1015#22 7MM(T) W/2.36 1P 500L	
M801		2427300008	LUG W/WIRE	UL1015 #18 GRN/YEL 110L	
M802		2427303002	LUG W/WIRE	64/0.12 W 4.3 ϕ T 100L	
PR801		2229202001	THERMISTOR,PTH	PDGS69ROMS-KB5 UPPERMOST	
P401		2404340003	CONNECTOR	LEOCO 1086 4PIN P=8.0	
P501		2404338001	CONNECTOR	LEOCO 2521 2PIN P=2.5	
P801		2404340001	CONNECTOR	LEOCO 1086 2PIN P=10	
Q310	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q310	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q310	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q404	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q404	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q404	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q405	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q405	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q405	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q406		2361303291	XISTOR,NPN R	2SC2655(Y)	TOSHIBA
Q407		2361317800	XISTOR,NPN R	BU4522AX	PHILIPS
Q408	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q408	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q408	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q410	RA	2361604600	FET,N-CH	FS10KM-5	MITSUBIS
Q410	RB	2361603500	FET,N-CH	2SK1101	FUJITSU
Q410	RC	2361604800	FET,N-CH	2SK1917-M	FUJI
Q410	RD	2361606800	FET,N-CH	RDN080N25	ROHM
Q410	RE	2361606500	FET,N-CH	IRFS634A	FAIRCHILD
Q411	RA	2361601800	FET,N-CH	IRF630	FAIRCHILD
Q411	RB	2361604900	FET,N-CH	BUK455-200A	PHILIPS
Q411	RC	2361606900	FET,N-CH	IRF630R	ROHM
Q412	RA	2361605000	FET,N-CH	2SK2645-01M	FUJI
Q412	RB	2361604500	FET,N-CH	FS10KM-12	MITSUBIS
Q413	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q413	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q413	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q414	RA	2361211291	XISTOR,PNP A	BF423	TOSHIBA
Q414	RB	2361211891	XISTOR,PNP A	BF423	PHILIPS
Q415	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q415	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q415	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q416	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q416	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q416	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q426	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q426	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q426	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
Q427	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q427	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q427	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q428	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q428	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q428	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q439	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q439	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q439	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q501	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q501	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q501	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q502	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q502	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q502	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q503	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q503	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q503	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q504	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q504	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q504	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q701		2361305500	XISTOR,NPN R	2SC2688L	NEC
Q702	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q702	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q702	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q801		2366200591	SCR	MCR100-6	MOTOROLA
Q802	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q802	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q802	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q803	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q803	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q803	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q804	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q804	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q804	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q805	RA	2361605000	FET,N-CH	2SK2645-01M	FUJI
Q805	RB	2361601200	FET,N-CH	2SK1507	FUJITSU
Q805	RC	2361604500	FET,N-CH	FS10KM-12	MITSUBIS
Q806	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q806	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q806	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q807	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q807	RB	2361110791	XISTOR,PNP R	KSA733C-G TA	FAIRCHILD
Q807	RC	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q808	RA	2361111191	XISTOR,PNP R	2SA1020(Y)	TOSHIBA
Q808	RB	2361110991	XISTOR,PNP R	KSA928A-Y	FAIRCHILD
Q809	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q809	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q809	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q810	RA	2361111191	XISTOR,PNP R	2SA1020(Y)	TOSHIBA
Q810	RB	2361110991	XISTOR,PNP R	KSA928A-Y	FAIRCHILD
Q811	RA	2361301291	XISTOR,NPN R	2SC2120(Y)	TOSHIBA
Q811	RB	2361315391	XISTOR,NPN R	2SC2001(L)	NEC
Q838	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q838	RB	2361313691	XISTOR,NPN R	KSC945C-G	FAIRCHILD
Q838	RC	2361302591	XISTOR,NPN R	2SC945(P)	NEC
RL401	RA	2413101600	RELAY,DC	JS1F-12V	NAIS
RL401	RB	2413102300	RELAY,DC	SRUDH-SS-112D1 DEG	
RL401	RC	2413102400	RELAY,DC	PUDH-SH-112D GOOD SKY	
RL801	RA	2413102200	RELAY,DC	AC240V/DC12V 5A OMI-SS-212DM	
RL801	RB	2413101400	RELAY,DC	AC240V/DC12V 5A OMI-SS-212L	
RL801	RC	2413102100	RELAY,DC	JW2aHN-DC12V/AJW5511 NAIS	
RL801	RD	2413102600	RELAY,DC	OSA-SS-212DM5	OEG
RL801	RE	2413102500	RELAY,DC	MI-SH-212DM	GOOD SKY

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R101		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R102		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R103		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R105		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R106		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R107		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R108		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R109		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R110		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R111		2239247015	RES,PRE 1/4 S	RN 1/4WS 4.70K	F
R112		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R113		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R115		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R116		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R117		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R118		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R119		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R120		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R121		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R122		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R130		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R131		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R132		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R133		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R134		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R135		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R136		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R141		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R142		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R143		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R145		2239233015	RES,PRE 1/4 S	RN 1/4WS 3.30K	F
R148		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R149		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R150		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R151		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R313		2233415295	RES,CBN 1/4 S	RD 1/4WS 1.50K	J
R314		2233415295	RES,CBN 1/4 S	RD 1/4WS 1.50K	J
R315		2235524903	RES,MTL 2	RS 2W 2.40	J
R316		2235410995	RES,MTL 1	RS 1W 1.00	J
R317		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R318		2232636195	RES,CBN 1/2	RD 1/2W 360.00	J
R319		2239222015	RES,PRE 1/4 S	RN 1/4WS 2.20K	F
R320		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R321		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R322		22392220025	RES,PRE 1/4 S	RN 1/4WS 20.00K	F
R323		2239228015	RES,PRE 1/4 S	RN 1/4WS 2.80K	F
R325		2233433295	RES,CBN 1/4 S	RD 1/4WS 3.30K	J
R330		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
R401		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R402		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R404		2233447395	RES,CBN 1/4 S	RD 1/4WS 47.00K	J
R405		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R406		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R407		22392220025	RES,PRE 1/4 S	RN 1/4WS 20.00K	F
R408		2239222025	RES,PRE 1/4 S	RN 1/4WS 22.00K	F
R409		2239210025	RES,PRE 1/4 S	RN 1/4WS 10.00K	F
R410		2239233025	RES,PRE 1/4 S	RN 1/4WS 33.00K	F
R411		2239220025	RES,PRE 1/4 S	RN 1/4WS 20.00K	F
R412		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R413		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R414		2233422395	RES,CBN 1/4 S	RD 1/4WS 22.00K	J
R415		2233415295	RES,CBN 1/4 S	RD 1/4WS 1.50K	J
R416		2239210015	RES,PRE 1/4 S	RN 1/4WS 1.00K	F
R417		2239228015	RES,PRE 1/4 S	RN 1/4WS 2.80K	F

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R418		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R419		2232647095	RES,CBN 1/2	RD 1/2W 47.00	J
R420		2233430295	RES,CBN 1/4 S	RD 1/4WS 3.00K	J
R421		2235547903	RES,MTL 2	RS 2W 4.70	J
R422		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R423		2235427095	RES,MTL 1	RS 1W 27.00	J
R424		2235575803	RES,MTL 2	RS 2W 0.75	J
R426		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R427		2239222025	RES,PRE 1/4 S	RN 1/4WS 22.00K	F
R429		2232647495	RES,CBN 1/2	RD 1/2W 470.00K	J
R430		2233415095	RES,CBN 1/4 S	RD 1/4WS 15.00	J
R431		2235412195	RES,MTL 1	RS 1W 120.00	J
R432		2233447495	RES,CBN 1/4 S	RD 1/4WS 470.00K	J
R433		2232647195	RES,CBN 1/2	RD 1/2W 470.00	J
R434		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K	J
R435		2233433395	RES,CBN 1/4 S	RD 1/4WS 33.00K	J
R436		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K	J
R437		2233412195	RES,CBN 1/4 S	RD 1/4WS 120.00	J
R438		2233447095	RES,CBN 1/4 S	RD 1/4WS 47.00	J
R442		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R443		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R444		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K	J
R446		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R447		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R448		2233424395	RES,CBN 1/4 S	RD 1/4WS 24.00K	J
R449		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R450		2233422495	RES,CBN 1/4 S	RD 1/4WS 220.00K	J
R451		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R452		2239230125	RES,PRE 1/4 S	RN 1/4WS 30.10K	F
R454		2233468295	RES,CBN 1/4 S	RD 1/4WS 6.80K	J
R455		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R456		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R457		2232615295	RES,CBN 1/2	RD 1/2W 1.50K	J
R458		2235447003	RES,MTL 1	RS 1W 47.00	J
R459		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R460		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R461		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R463		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R464		2233422595	RES,CBN 1/4 S	RD 1/4WS 2.20M	J
R465		2233415395	RES,CBN 1/4 S	RD 1/4WS 15.00K	J
R466		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R468		2232620995	RES,CBN 1/2	RD 1/2W 2.00	J
R469		2233468395	RES,CBN 1/4 S	RD 1/4WS 68.00K	J
R470		2233422395	RES,CBN 1/4 S	RD 1/4WS 22.00K	J
R471		2233422395	RES,CBN 1/4 S	RD 1/4WS 22.00K	J
R472		2233422595	RES,CBN 1/4 S	RD 1/4WS 2.20M	J
R473		2232610095	RES,CBN 1/2	RD 1/2W 10.00	J
R474		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R475		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R476		2233439395	RES,CBN 1/4 S	RD 1/4WS 39.00K	J
R477		2233415295	RES,CBN 1/4 S	RD 1/4WS 1.50K	J
R480		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R482		2235447095	RES,MTL 1	RS 1W 47.00	J
R483		2235447495	RES,MTL 1	RS 1W 470.00K	J
R487		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R488		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R489		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R491		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R492		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R495		2233422195	RES,CBN 1/4 S	RD 1/4WS 220.00	J
R496		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R497		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R499		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R501		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R502		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R503		2233443295	RES,CBN 1/4 S	RD 1/4WS 4.30K	J
R505		2232668995	RES,CBN 1/2	RD 1/2W 6.80	J
R506		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R507		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R584		2233447395	RES,CBN 1/4 S	RD 1/4WS 47.00K	J
R585		2233415395	RES,CBN 1/4 S	RD 1/4WS 15.00K	J
R592		2232630295	RES,CBN 1/2	RD 1/2W 3.00K	J
R593		2232647095	RES,CBN 1/2	RD 1/2W 47.00	J
R701		2233418495	RES,CBN 1/4 S	RD 1/4WS 180.00K	J
R702		2233418495	RES,CBN 1/4 S	RD 1/4WS 180.00K	J
R703		2233412395	RES,CBN 1/4 S	RD 1/4WS 12.00K	J
R704		2233430495	RES,CBN 1/4 S	RD 1/4WS 300.00K	J
R705		2233424395	RES,CBN 1/4 S	RD 1/4WS 24.00K	J
R706		2233420195	RES,CBN 1/4 S	RD 1/4WS 200.00	J
R709		2233439295	RES,CBN 1/4 S	RD 1/4WS 3.90K	J
R710		2232622495	RES,CBN 1/2	RD 1/2W 220.00K	J
R712		2235556903	RES,MTL 2	RS 2W 5.60	J
R713		2233420395	RES,CBN 1/4 S	RD 1/4WS 20.00K	J
R801		2235447495	RES,MTL 1	RS 1W 470.00K	J
R802	RA	2229201212	THERMISTOR,PTH	SCK-103 10+-20% 3A THINKING	
R802	RB	2229400612	THERMISTOR,NTC	NTC UPPERMOST N10SP010***-K2	
R803		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R804		2233420195	RES,CBN 1/4 S	RD 1/4WS 200.00	J
R805		2233475295	RES,CBN 1/4 S	RD 1/4WS 7.50K	J
R806		2233433095	RES,CBN 1/4 S	RD 1/4WS 33.00	J
R807		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R808		2233447395	RES,CBN 1/4 S	RD 1/4WS 47.00K	J
R809		2233447495	RES,CBN 1/4 S	RD 1/4WS 470.00K	J
R810		2235439395	RES,MTL 1	RS 1W 39.00K	J
R811		2235439395	RES,MTL 1	RS 1W 39.00K	J
R812		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R814		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R815		2233433395	RES,CBN 1/4 S	RD 1/4WS 33.00K	J
R816		2233468295	RES,CBN 1/4 S	RD 1/4WS 6.80K	J
R817		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R818		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
R819		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R820		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R821		2232610295	RES,CBN 1/2	RD 1/2W 1.00K	J
R822		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K	J
R823		2233418395	RES,CBN 1/4 S	RD 1/4WS 18.00K	J
R824		2233468495	RES,CBN 1/4 S	RD 1/4WS 680.00K	J
R825		2235433895	RES,MTL 1	RS 1W 0.33	J
R826		2235447395	RES,MTL 1	RS 1W 47.00K	J
R827		2235522103	RES,MTL 2	RS 2W 220.00	J
R829		2235533803	RES,MTL 2	RS 2W 0.33	J
R830		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R831		2233433295	RES,CBN 1/4 S	RD 1/4WS 3.30K	J
R832		2235422195	RES,MTL 1	RS 1W 220.00	J
R833		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R834		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R835		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R836		2232620195	RES,CBN 1/2	RD 1/2W 200.00	J
R837		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R840		2233433495	RES,CBN 1/4 S	RD 1/4WS 330.00K	J
R841		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R842		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R849		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
SK801	RA	2407412100	SOCKET	POWER SOCKET SC-9R SUPERCON	
SK801	RB	2407412200	SOCKET	POWER SOCKET 0714CR7 INALWAYS	
SK801M		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m	
SW101		2403700800	SWITCH,PU-TC	P4.5*4P(REF SKHH43A520-SV FW)	
SW801	RA	2403104100	SWITCH,PUSH	FORWARD SPPJ22NE01-SV 30V 0.2A	

E70-3 Service Manual

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
SW801	RB	2403104200	SWITCH,PUSH	RONG FONG WPM-2PLM 30V 0.3A	
S401	RA	2406200500	SWITCH,LEVER	EVQ-ROB (PANASONIC)	
S401	RB	2406200700	SWITCH,LEVER	TLF1X3	HORNG CHN
S401	RC	2406200600	SWITCH,LEVER	BGL-0131	HUA-JIE
TP402		2404200100	PIN PLUG	UZ-006P(1P-A)	
TP801		2404200100	PIN PLUG	UZ-006P(1P-A)	
T401		2374204800	XFORMER,POWR	JD176 1.5MH/60UH 80T/16T REF	
T403	RA	2385209300	FBT	ETF39L3016AZ	MATSUSHITA
T403	RB	2385208600	FBT	DFBTEA850-1570	SAMPO
T403	RC	2385208800	FBT	CJP28634-00A	JVC
T403	RD	2385209200	FBT	9602-23A	DARFON
T403M		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m	
T404		2371154400	COIL,CHOKE	JD176 9MH-14MH 60T/60T REF	
T701		2374204900	XFORMER,POWR	JD176 1.5MH/0.5H 27T/48T(REF	
T801	RA	2371155100	COIL,CHOKE	HF2835-163Y1R5-T01A	TDK
T801	RB	2371155200	COIL,CHOKE	SR28X28V 16 mH MIN MYLEE	
T801	RC	2371155300	COIL,CHOKE	FET28S-V21603-956130 HUA JUNG	
T801M		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m	
T803		2374206900	XFORMER,POWR	JD177P2 0.27X3X18T 270uH	
T803M		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m	
U001		2202107405	PC BOARD	JD177G MAIN 94V0 330*245 V6.12	
VR404		2225120390	RES,SEMI FIX	0.1W B 20K N	
VR801		2225110290	RES,SEMI FIX	0.1W B 1K N	
X101		2369102701	XTAL,OSC	XTAL 8.0MHZ 30P/0.1mW	
ZD401	RA	2363506395	DIODE,ZENER	HZ15-2 14.5-15.1V 0.5W HITACHI	
ZD401	RB	2363506495	DIODE,ZENER	MTZJ15C	ROHM
ZD401	RC	2363515795	DIODE,ZENER	BZX79C15	PHILIPS
ZD402		2363508395	DIODE,ZENER	1M160Z	PEC
ZD801	RA	2363507195	DIODE,ZENER	HZ24-2 23.6-24.7V 0.5W HITACHI	
ZD801	RB	2363515495	DIODE,ZENER	MTZJ24C	ROHM
ZD801	RC	2363515895	DIODE,ZENER	BZX79C24	PHILIPS

OTHERS

L501	2385700100	COIL,ROTATION	0.2 ϕ 300T DCR100OHM MAX
L811	2385404600	COIL,ERASE	JD177 NORMAL 0.5 ϕ X80T 1183L
P901	2420102700	CRT WIRE	JD177D 0.12/80C 820L
V901	2211015100	CRT ASSY	M41AGE83X76C CPT
P909	2427501074	I/O CABLE	D-15M/JWT*12(1046) V.S. PC99
P999	2427130001	POWER CORD	SVT 18/3C GRAY 1.5M

